

THE PLOUGH

THE LOOM AND THE ANVIL.

F. G. SKINNER AND MYRON FINCH, EDITORS.

MOSES P. PARISH, ASSISTANT EDITOR.

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MOSES P. PARISH, Assistant Editor and General Agent.

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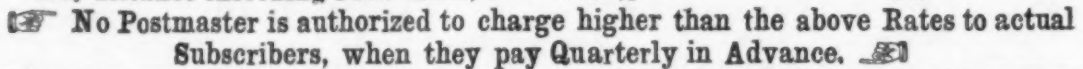
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The Plough, the Loom, and the Anvil.

VOL. V.

JULY, 1852.

No. 1.

WORKING OF *BRITISH* FREE TRADE.

(CONTINUED.)

IN a former number* it was promised that the review of Mr. Rantoul's speech should be continued. We desired to show to our readers that the knowledge of political economy displayed therein was on a par with the accuracy of the facts, each and every one of which had been shown to have no foundation but in the fertile imaginations of those who had made the hon. gentleman the conduit through which to convey to the world a greater mass of misstatements than we had ever before seen compressed into so small a space. It is proposed now to redeem that promise.

The hon. gentleman is, as our readers have seen, a great advocate of railroads, which he regards as "the greatest invention that science has yet given us for increasing the value of land." Had he read ADAM SMITH, he would have found, as we have before suggested to him, a greater one, for he would there have found that the natural place for the artisan is by the side of the producer of food and wool, the first to be eaten while the latter was being converted into cloth and fitted for cheap transportation to distant countries—and that the more fully the consumer and the producer could thus be brought together, the greater *must* be the increase in the value of land. In a piece of cloth, according to that highest of *real* free-trade authorities, there are many hundredweights of food and wool, the transportation of which, in their original forms, would be highly burdensome to the farmer, who is therefore greatly benefited by having them reduced into the compact form of cloth; and that he is so, we have the admission of the hon. gentleman himself. "Diminish," says he, "the time and expense of reaching a market from a section of land in Missouri, and you raise the price of that land instantly and largely the moment you do so," an assertion the truth of which cannot, even for a moment, be questioned. The object of the tariff of 1842 was that of enabling the farmer to send his products to market in the most compact form, and thus to diminish both the time and expense of reaching the market. Under it the corn and other raw products of Missouri were converted into lead, and to so great an extent that the export of that commodity from the West rose from year to year, until in 1847 it had attained the amount of nearly 800,000 pigs, with every reason to believe that by this time it would reach 1,600,000, and thus were the time and expense of sending to market the products of Missouri and Illinois greatly diminished, a process which, according to the reasoning of the hon. gentleman, should have added largely to the value of land. Under it the corn of Ohio and Indiana was being fed to the *great manufacturer of manure*, the hog, and the hay and other descriptions of food were being fed to *those other manufacturers of manure*, the ox and the sheep, and to so great an extent

* See No. for April.

that the export by the New York Canal of the product of animals, doubled in six years, and thus did the farmer find a great decrease in "the time and expense of reaching a market." Under it, the corn and the pork of Kentucky and the neighbouring States were fed to *that other manufacturer of manure*, the labourer, to so great an extent that the quantity of hemp received at New Orleans rose from one thousand two hundred and eleven bales, in 1841-2, to *sixty thousand bales* in 1846-7, and thus did the planter find a great decrease in "the time and expense of reaching a market."

Under the tariff of 1846, we find the export of lead diminishing from year to year, until in the last one it had fallen to 325,000 tons, and is likely in the present one to fall below even 250,000. Under it, we find the product of animals passing through the New York Canal diminishing from year to year, and likely to fall in the present one to little above the point at which it stood nine years since, within which time the population of the West must have almost doubled. Under it, we find the quantity of the same commodities received at New Orleans diminishing from year to year, and with a rapidity beyond all example. Under it, we find the export of food in the form of hemp gradually falling, until it has almost reached the point at which it stood in 1842-3. Under it, the export of food in the form of bagging is steadily and regularly diminishing; but under it, the export of Indian corn, the rudest form in which food can be exported, is steadily increasing, and thus it is that the policy advocated by the hon. gentleman is profiting the farmer and the planter in increasing instead of diminishing the time and expense of going to market. Diminish the export of food in the form of lead, of pork and of beef, of butter and of cheese, of hemp and of bagging, and send to market *ten tons* of Indian corn where before you sent *a single ton* of butter or of cheese, of hemp or of bagging, and you will thus, according to our orator, diminish the "time and expense of reaching a market," and thus will you give value to your land. Such is the political economy of the Manchester school, in which the hon. member is so distinguished a professor!

It has been in vain that we have looked through this speech for any reference to the fact that the more distant the market the greater is the difficulty of restoring to the land that most important portion of the farmer's crop, the manure. When corn is converted, on the farm on which it is produced, into pork, and hay into beef, the refuse of the food goes back upon the land, which becomes enriched instead of being exhausted, whereas when the farmer kills his hogs and sells his corn, his land is speedily worn out, and then he runs away himself. Under the tariff of 1842, there was a steady increase in the manufacture of manure, as is shown by the fact that the export of the product of animals doubled in six years, whereas since the tariff of 1846 became fairly operative, the number of hogs and of cattle has steadily and rapidly declined, and with it the power of the farmer to maintain the productive power of his land. The railroad is truly a great invention, for it enables the farmer to send his corn to market, but it is forgotten by the hon. gentleman that the farmer needs a market in which to obtain manure as well as one in which to sell his corn. When he feeds the food on the ground, he obtains the manure altogether free of cost. When he carries his corn and his pork to his neighbours engaged in producing iron, coal, lead, hemp, or cloth, he has the manure at small cost for transportation; but when the hogs and the cattle disappear, and the corn has to go to a distant market, he pays freight on a large bulk instead of a small

one, and the cost of bringing back manure is so great that it is altogether lost to him. "Diminish," says the hon. gentleman, "the time and expense of reaching market, and you increase the value of land." Such was the object of the tariff of 1842, because it tended to make a market on or near the land for all the products of the land, thus economizing transportation out and home. Such is *not* the object of that of 1846, because it tends to separate the consumer from the producer, and therefore to diminish the value of land. We should be glad if Mr. Rantoul would explain how it is that that law tends to add to the value of either land or labour, when its operation is directly the reverse of that which he assures us tends to give value to land. If his political economy is sound, he can have no difficulty in doing this.

The hon. gentleman informs the manufacturers that they thrive as their customers thrive, and that they must perish "if the West ceases to be a good purchaser," facts that cannot be gainsaid, and it is because that such *are* the facts that we advocate protection. The farmer prospers as the market is brought near to him, and the nearer the market the more rapid is the increase in the value of labour and land, as was shown in the fact that the ability of the farmers and planters of the Union to purchase and pay for iron trebled, and that their consumption of cotton and woollen cloth doubled, in the brief period of the existence of the tariff of 1842. Why they did so is explained by the fact that our farmers were steadily improving the quality of their products, and thus diminishing the cost of transportation, sending lead, and wool, and hemp, in the place of corn. The farmer suffers as the market is driven from him, as is shown in the fact that under the tariff of 1846, notwithstanding the accumulation of foreign debt to a frightful extent, the consumption of iron and of cloth is steadily diminishing as the West is ceasing to send lead, wool, hemp, and pork, and sending in its place the rude Indian corn. The manufacturers *know well* that "they thrive as their customers thrive,"—they *know well* that there is between them and their customers a perfect harmony of interests,—and they feel sensibly that while they themselves are affected by the policy advocated by Mr. Rantoul, which diminishes their own power to obtain food, it diminishes in a still more rapid degree the power of the farmer and the planter to obtain machinery of cultivation and of manufacture, as is shown in the wonderful diminution in the quantity of iron that is consumed, and in the almost equally wonderful diminution in the quantity of cotton goods, foreign and domestic, consumed throughout the Union.

"The manufacturing people have," says the hon. gentleman, "every thing to hope for from the West, who are their best customers." So they were, and so will they be again, whenever we shall again adopt a policy that will enable the people of the West to remain at home and improve their land, as was the case to so vast an extent under the tariff of 1842. Let them be again protected in the conversion of food into iron and lead, hemp and wool, and we shall again see the production of pork, beef, butter, and cheese go ahead as it did five years since, and then the demand for cotton and woollen goods, and for iron, will go ahead as it did then. At present, the course of things throughout the West is precisely the same that we see it to have been in Ireland, which but lately was a large exporter of pork and beef, butter and cheese. Under *British* free trade, the number of hogs and cattle in that country has steadily diminished, as it is now doing here. There, the export of animal products has steadily diminished, as it is now doing here. There, the land has been impoverished for want of the manure that would have

been yielded by the hogs and cattle that have been killed, as is now being the case here. There, the people now export oats, instead of pork, butter, and beef, as the people of the West now export corn instead of pork, and with each step of this process, they both become poorer customers to those who produce cloth and iron, as is the case with each and every exclusively agricultural country in the world. Well do the manufacturers know that the greatest and best of their customers should be found in the West, and greatly do they regret to find that under the policy advocated by the hon. gentleman, the domestic consumption declines so rapidly that they are daily more and more compelled to look abroad for a market for even the diminished quantity of cloth that is now made—and all that they would desire would be that the speaker should examine for himself the effects of the policy of 1842 and of 1846, with a determination in future to advocate that one under which the farmers and planters were proved to have advanced most rapidly in the power to purchase machinery for the production of food and wool, and clothing for themselves, their wives, and their children. We pray the hon. gentleman to enter upon this inquiry. We desire that he should satisfy himself that under the system of American free trade—under that system which enables the farmer to exchange at the nearest market, and which diminishes to the greatest extent “the time and expense of going to market,”—the consumption of all articles used by our farmers and our planters, our artisans and our labourers, increased with wonderful rapidity. We desire, too, that he should satisfy himself that under the system of Manchester free trade—under that system which compels the farmer to exchange in the most distant market—the power of consumption diminishes with a rapidity equally wonderful. That done, we would have him exert himself for the release of his countrymen from the control of the men of Manchester and Birmingham, who accumulate princely fortunes by acting in the capacity of middlemen—standing between the farmers and planters and their customers—and by so doing have ruined Ireland, Portugal, India, the West Indies, and every other country connected with them; or, if he will still persist in his advocacy of the system which has thus exhausted and ruined all the countries subject to it, we desire that he shall do it with his eyes open, and with a full knowledge that whatever greatness he may achieve will be at the cost of the power of his country and the happiness and prosperity of his countrymen. If he will continue to sin, we desire that he shall do so with his eyes open.

“The danger to the manufacturers is,” says the hon. gentleman, “not from abroad.” “By what tenure,” he continues—

“Does New England, does New York, does Pennsylvania hold the manufactures which they now monopolize? Why do they manufacture for the West, and how long will they do so? Not for ever. My friends must be aware of that fact. It is not in the nature of things, if we look at them as they really are, and do not try to impose upon ourselves by any fancies in the matter. New England will not for ever make cotton goods, and Pennsylvania iron, for the valley of the Mississippi. Not at all—it cannot be so. The man who thinks that it is to endure for centuries, expects to war against the laws of nature, and overcome them—a result that never happens. Why, sir, can any one tell me why cotton goods should be made in Lowell, or in Massachusetts anywhere, for the valley of the South-west, when Ohio, Indiana, Illinois, Kentucky, and Tennessee are close upon the region that produces the raw material? Why should not cotton goods, at least for their own consumption, be made there? Why should not they be made in Alabama, or in Georgia? For my part, I can see no reason; and therefore I believe ultimately they will be made there. Well, can any man tell me why woollen goods, to supply the West, are to be made in

New England for ever, when Wisconsin can raise wool at half the price that we can—when Iowa and Michigan are increasing their production of wool as rapidly as the returns in the newspapers tell us they are? Where wool grows cheaply, in a good climate for manufacture—where there is good water-power, and an active and thrifty population—there ultimately will be the seat of the woollen manufactory."

Why should not Georgia make cotton goods, not only for her own consumption, but why should she not export almost all her cotton in the forms of yarn and cloth? Why should not Alabama do it? Why should it not be done by the Carolinas and Tennessee? Water-powers are everywhere running to waste. Fuel is everywhere cheap, and the labour-power of men and women, boys and girls, is everywhere wasted for want of a market for it—and yet the Carolinas and Georgia, Tennessee and Alabama, Louisiana and Florida, export their products in the rudest forms, and paying the heaviest cost of transportation, although so well knowing that whatever tends "to diminish the time and expense of reaching a market" increases the value of land. If the hon. gentleman desires to understand why they do this, we would recommend to him to study ADAM SMITH, in whose great book he will find a description of the British system of his day and of our day, and a denunciation of it as being "a manifest violation of the most sacred rights of mankind," because it tended to destroy everywhere the value of both labour and land.

"How long," says the hon. gentleman, "will New England, New York, and Pennsylvania hold the manufactures they now monopolize?" We will tell him. They will continue to hold them so long as the policy of 1846 shall continue—so long as it shall continue to be the policy of the country to continue in the hands of Birmingham and Manchester the control of the commerce of the world. Under absolute free trade, in the Manchester acceptation of the term, there would be no manufactures outside of England. Under the present system, there will still be manufactures in this country, because certain descriptions are now so firmly established in the Middle and Eastern States, that they cannot be broken down; but under this system they cannot and will not be extended. However cheaply wool may grow in the West, and cotton may grow in the South, they will still have to go North and East to be converted into cloth. So long as Mr. Rantoul and his friends shall continue to direct the policy of the Union—so long as it shall be deemed the perfection of modern political economy to keep the producer and the consumer asunder—so long as prosperity shall be measured by the amount of foreign trade without regard to the domestic one—so long as the imposture of Manchester free trade shall be deemed preferable to the real free trade of honest old ADAM SMITH—so long as Say and Wayland shall continue to supersede the *Wealth of Nations*—so long will the South and the West continue to be dependent upon the North and the East. Should the hon. gentleman undertake to deny this, we would beg him to explain why it is that Illinois and Wisconsin are ceasing to make lead, for which they have every advantage—why it is that Kentucky is ceasing to make hemp—why it is that the whole West is gradually ceasing to grow wool—and why it is that Ohio is ceasing to manufacture pork and beef, exporting her products in the rude form of corn instead of the more compact forms of hams, butter, and cheese? Let him look at the tables of exports from the West, and he will find a steady tendency to the substitution of the ruder forms for the more compact ones, with steady increase in the cost of

transportation, and equally steady increase in the tendency toward the exhaustion of the land, and its abandonment.

"Pennsylvania," the hon. gentleman is of opinion, "has something else to fear than importations from the other side of the Atlantic."

"The region around Lake Superior," he continues—

"Has better iron ore than most of that of Pennsylvania, and a great abundance of it. I have here before me the calculation of a single deposit of iron ore there—a mountain of iron ore, three-quarters of a mile in length, and half a mile wide, and from fifty to two hundred and fifty feet deep—to be within bounds, I choose to take seventy-five feet only, as the average depth. Take those dimensions, and you have 145,000,000 tons of ore, reckoning five tons to the cubic yard. That single spur of iron—70 per cent. iron to the ore, of 145,000,000 of tons of ore, is less than one-thirtieth part of the deposit upon the shore of Lake Superior—you have there 2,200,000,000 of tons of iron in a single deposit, reckoning two tons of ore to one ton of blooms. Well, at a million of tons a year, it will last you 2,200 years. And that is what Lake Superior alone has of the finest iron in the world. You can manufacture it already cheaper than you can make it anywhere in Pennsylvania. Will the North-west be supplied from Pennsylvania, when she has the iron there within her own limits?"

Such being the case, he asks—

"Is St. Louis to be the seat of the great iron manufactory of the centre of the Mississippi valley, or is it not? Is Missouri to bring iron from Pennsylvania? Has not she ore enough to supply the whole civilized world, thousands of years, and coal, too, not very far off? A very short railroad runs down to a bed of coal that is suitable for the purpose of working her metals.

"In East Tennessee there is a quantity, inexhaustible, which makes good, strong, malleable, tenacious iron, very different from the largest part of the iron manufactured upon the Atlantic slope. But is the West to look for ever East for its supply? Most assuredly it will not. It seems to me the man is mad who imagines it can be so. Here, then, for the purpose of illustrating my idea, I have taken three branches of manufacture—the iron, the woollen, and cotton. Sooner or later the three, each of them, will depart from their present locations in New England, New York, and Pennsylvania. And when it is for the interests of the people of the United States for them to do so, in God's name, let them go. You cannot expect, against the interests of a great people, to hold any branch of industry in any particular location. It must follow its own laws. It must go where it can thrive best. It must go where it is best suited, and leave others to whom it is not suited by nature, to seek out new modes of industry, and to exert their enterprise in other ways. For my own part, I believe that the people of New England and New York will find out other ways in which they can exert their enterprise and industry to quite as great advantage; and I say to the people of the North-east, cotton, woollen, and iron must some day or other be generally manufactured a great many hundred miles west of where they are now. When will that happen? The answer is an easy one. You cannot give the precise year, but the West will cease to buy these things from the North-east, and they will produce these articles themselves, just when it ceases to be more profitable to the West to produce agricultural products."

Such are the events that, in the estimation of the hon. member, are inevitably to happen, yet what is now the tendency of things? Is it not to the centralization of manufactures at Lowell, and of the iron manufacture in Pennsylvania? Undoubtedly it is so. The consumption of cotton in the South and West had already in the last year fallen to one-half, while the reduction at the North was under twenty per cent. Throughout the country south of New England, cotton and woollen factories are everywhere closed, and yet Lowell, Lawrence, and Providence keep in motion, ready at any moment to work full time, while their southern and western neighbours are rapidly becoming bankrupt, and their mills are passing through the hands

of the sheriff—and while their machinery is decaying, and their hands, whom it had cost them so much to collect and to instruct, are being scattered throughout the land. So too with iron. The furnaces of New England and New York, of Ohio and of Virginia, are closed, and yet Pennsylvania continues to make iron, and the result of the next five years will probably be to establish the centralization of the domestic iron trade within that State more perfectly than it has ever before existed, the cause of which is found in the fact that the present *democratic* tariff crushes all attempts on the part of the farmers of Ohio and Tennessee, Maryland and Virginia, to bring the maker of iron to the side of the producer of food. Under the tariff of 1842, the manufactures of cotton and woollen cloth and of iron were rapidly diffusing themselves over the Union, whereas under that of 1846 they are as rapidly centralizing themselves, and will continue so to do, although the West possesses advantages so immense for the production of iron, although it is so close to the cotton-growing region, although it grows so much wool, and although it has food in such abundance, for which it has now almost literally no market. We invite the hon. member to study the facts now everywhere transpiring, and see if they do not bear us out in the assertion that the policy he advocates tends to make the farmers and planters of the country mere hewers of wood and drawers of water for distant manufacturers, and to render it absolutely impossible that the people of the West should profit by their vast natural advantages for the production of all the commodities needed for their comfort and their enjoyment. We invite him to satisfy himself that it diminishes *by one-half* the value of both labour and land. That done, we would recommend him to re-read his own speech, and determine for himself if we were not right in saying that his knowledge of political economy was on a level with the accuracy of his facts.

“The only safety for the manufacturing States,” says our orator—

“To continue such, is to do all they can—nature has done the greater part, but they can help a little—to make agriculture highly profitable in the West and the South-west. If a man can make better wages by raising corn or pork, he will not set himself to work to manufacture woollen or cotton cloth; when he cannot make so much by raising corn or pork, he will make iron, and you cannot prevent him. All the legislation in the world cannot say to the West, You shall not manufacture; but legislation may do a great deal to say to the West, Here is something more profitable for you than manufacturing; and the seats of manufacturing may remain for a great many years longer than they otherwise would, in the North-east.”

The misfortune of the hon. member appears to us to consist in this, that being a disciple of the Manchester school of political economy, he can see no advantage resulting from any thing short of a *monopoly* such as it is the object of *British* free trade to establish in favour of the people of England. He supposes that the States which are now engaged in manufactures can be benefited only by saying to the West, “Do not manufacture,” and yet the object of the protective policy which they support is to bring the spindle and the loom, the hammer and the anvil, in every part of the Union, to take their natural places by the side of the plough and the harrow. So fully is it understood that protection tends to produce domestic competition, that the unenlightened portion of the Eastern manufacturers deprecate the establishment of thorough protection, because it will be certain to establish manufacturers throughout the West and South. *Let the hon. gentleman deny this if he can.* The more enlightened of the manufacturers know that the more common cotton goods made in the South and West, the more fine ones they

will be able to buy and pay for—and *not* in bonds—in the East. The more iron ore they smelt in Ohio and Tennessee, the more machinery will they need from Pennsylvania, New Jersey, New York, and New England. The more lead ore they mine and smelt, the more books and newspapers they will require. The more hemp and wool they raise, the more silks and teas they will purchase. The more of all these things they do, the larger will be the quantity of exchanges they will have to make, and the greater will be the business of the shopkeeper and the merchant. The more of these they do, the greater will be the power to make roads and the greater the demand for ships. Between the various sections of the Union there is a perfect harmony of interests; and it argues a littleness of mind quite unworthy of the station at which the hon. member has arrived, to preach such doctrines as those to which we now refer.

With a view to maintain the *monopoly* of manufacture, deemed so desirable by our *free trade* orator, the people of the East and North-east are admonished that they must

“Favour in all ways possible the development of the western agriculture. First, by opening the roads to the North-east, to the East, and to the South-east, and to the whole Atlantic slope, by connecting them with the valley of the Mississippi in the cheapest and most practicable manner. And next by developing, as far as possible, the foreign commerce; for that, by taking off the surplus of agricultural products, tends to keep up the prices. See how the prices of cotton, tobacco, rice, flour, and corn, have kept up, notwithstanding what is said in the Report of the Secretary of the Treasury, and in the President's Message. See how they have kept up for the last five years, compared with the previous four.

“I do not mean to trouble the House at the present time with columns of statistics. I will give the total here of a few great articles, as I have them before me. Take wheat. The wheat exported from this country for the four years previous to the adoption of the tariff of 1846, averaged 96½ cents per bushel. For the last five years it has averaged \$1.26½—30 cents higher.”

The foreign commerce is to be developed, that it may take off the surplus of our agricultural products, and thus keep up prices, but unfortunately the European market for food has almost entirely disappeared. To the continent of Europe, our whole export of food, the products of the grain-growing States, is so insignificant as not to amount to even *twenty thousand dollars in a year*. England is now an exporter of grain; and although famine at this moment exists in a large portion of the continent, wheat and flour are at prices almost as low as we have ever seen, and without any prospect of a change. Why they are so, is easily seen. The tariff of 1846 has closed the furnaces, mines, and mills, at which were produced almost a hundred millions of dollars' worth of cloth and of iron, to be given in exchange for food, and the people who were in them have been driven from being *customers* to the farmer to become *rivals* to him. The more producers of food, the lower must be the prices at which it sells. The more consumers of food, the higher must be prices. Nevertheless, the hon. member gives a statement of prices with a view to show that those of the tariff of 1846 have been higher than those of the tariff of 1842, and how is this result obtained? By a process exactly similar to that usually resorted to by the advocates of the British system, which tends to render the farmers and planters of the world mere slaves to the owners of the spindle and the loom—by fraud. We do not, however, desire to charge the hon. member with having himself knowingly and willingly perpetrated the fraud contained in his statements. We believe, as has before been said, that he has been made the instrument

of others better informed than himself; and we do wish that, for the sake of his own reputation, he had followed the advice offered him on a former occasion, and publicly disclaimed all responsibility for the enormous mis-statements exposed in our review of his facts and figures. It seems to us quite clear that the person who prepared the tables used by the hon. member knew what was the truth, however little disposed he might be to proclaim it to the world. Had he done so, the speech would now read as follows:—

“In 1842, under our strictly revenue tariff, our manufacturers were everywhere ruined. The home demand for food had been destroyed, and the farmers were forced to look abroad for a market, the consequence of which was, that although our export was greater *in quantity* than it had been for years before, by seventy-five per cent., the value had increased but thirty per cent. Under the tariff passed in that year, the home market grew rapidly, and in 1846 it absorbed of food one hundred millions of dollars more than it had done five years before, and yet the productiveness of agricultural labour had so greatly increased that we had seventy-five per cent. more to export, and obtained higher prices for the larger quantity than before we had for the smaller one. In the midst of the fiscal year 1847, the tariff of 1846 went into operation. A famine abroad produced demand for food, and the large crop of 1846 enabled us to supply it at high prices, thus swelling largely the export of this year, *during nearly one-half of which the tariff of 1842 was in force*, and during the whole of which that of 1846 was inoperative, because the great speculation in Europe maintained prices, and our mills and furnaces were prosperous, and created a great demand for food. In 1848, the effects of the famine were still felt because of the exhaustion of the usual stocks, and there still continued a large demand for food for Europe. In the last three years, however, the effects of the famine having passed away, the foreign market has gradually declined, and is now at a lower point than that at which it stood five years since, and prices have fallen here to a point even lower than those which prevailed in the calamitous period of 1841–2, and all our hopes of revival are centred in the idea that in this year or the next, or in some future one, the people of England may be cursed with a deficient harvest, and may be forced to take our food in pay for iron, and thus relieve us from the necessity for paying in bonds, bearing interest. Under the tariff of 1842, our farmers and planters were from day to day becoming more and more masters of their own actions. Under that of 1846, they are becoming from day to day more and more slaves of the spindles and the looms of Manchester, and the hammers and anvils of Birmingham.”

Such would have been the words of the hon. member, had his assistants furnished him with a true statement of facts. Instead of this, they clubbed together the unhappy year 1842, when the home market was destroyed, and the prosperous year 1845–6, when protection had given the farmers a vast home demand, and thus produced a *low* average of prices. Next, they took the year 1846–7 as belonging to the period of the tariff of 1846, which it did not. Next, they took the famine prices of 1847–8. Lastly, they *suppressed* the year 1850–1, because the export of food was small and prices were low, and thus did they cover up the small trade and low prices of the years in which the tariff of 1846 was really operative, and having by these falsifications of facts obtained a *high* average of trade, both as regarded quantity and price, they palmed it off upon the hon. member, and through him upon the world, as a fair and honest exhibit of the disadvantages of protection, and

the advantages of British free trade. We confess we pity our orator for having permitted himself to be placed in a situation so disagreeable, but trust it will be a lesson to him not again to furnish the world with statements for which he is not willing to be held accountable in a court of honour, which he certainly would not in the present case desire to be.

Our readers have had before them the facts that the prices of nearly all our products rose under the tariff of 1842, notwithstanding an increase in the quantity exported, while prices have in all cases fallen below the point at which they stood six years since, except where the quantities to be exported have greatly fallen. Such being the case, we pray them to read and judge of the assertion contained in the following sentence :—

“Almost all have *risen* under the last tariff, just as all *fell* under the tariff of 1842.”

The reason for this is, as he says, very plain :—

“You cannot carry on a trade but shall have two parts. Every exchange must consist of a sale and a purchase. Stop your purchases, and you stop your sales ; so if you will buy nothing on the other side of the Atlantic, you cannot sell any thing. Let commerce move freely, and you increase it vastly, and increase the prices of whatever you have to sell, because you increase the power of the other party to buy of you.”

This is quite true. The more you have to sell, the more you can buy, and the more competitors for the purchase of your commodities, the higher will be the prices you will realize for what you sell. In 1846, the quantity of iron to be exchanged against food and clothing, was three times as great as it had been four years before—and the cotton and woollen cloth to be exchanged against food and iron, was almost double what it had been five years before, and the consequence of this was that farmers had higher prices. In 1850–51, notwithstanding a vast increase of agricultural population, the quantity of iron, foreign and domestic, and of cotton and woollen cloth, foreign and domestic, to be exchanged against food, is less by twenty or twenty-five per cent. than it was four years before, and the consequence is, that the farmer has low prices for his wheat and his corn. Commerce moved freely in 1846, because there was large competition for the purchase of food. Under the tariff of 1846, commerce has fallen under the control of the Manchester and Birmingham monopoly, and the competition for the purchase of food has regularly and steadily diminished, and prices have fallen, except where production has enormously diminished, as is the case with all the most valuable productions of the farm—pork, beef, lard, cheese, butter, &c. Free trade, in the estimation of the hon. member, consists in allowing the farmer but one market in which to sell, and that one beyond the Atlantic. Real free trade consists in having numerous markets, and those close to the farmer's door, enabling him to return to his land the manure yielded by the products of the land. The farmer and the planter who desire to have numerous markets and high prices, should awake to the fact, that protection against the Manchester and Birmingham monopoly is the pleasant, the profitable, the short, and indeed the only road by which to attain real freedom of trade.

CARROTS FOR MILCH COWS.

THE following very satisfactory experiment was made by J. W. Lincoln, Esq., of Worcester, Mass., and can leave no doubt on the mind of the reader of the value of feeding this root to cows. He had long been accustomed to this practice, but was induced to test its correctness, by a communication in the *New-England Farmer*, declaring them of use only "to tickle the palate of a pet cow." He says:

"I was desirous of further evidence; I read the communication to Mr. Hawes, who has the immediate supervision of my farm, and requested him to take two cows then giving milk, as much alike as he could find them, ascertain what quantity of hay they were then eating, continue to them the same quantity of hay, but add to one of them a peck of carrots per day; and after a trial of a week to change the carrots to the other cow, to watch the effect carefully, and to report to me the result. He informs me that the milk of the cow eating carrots was increased one quart or more each day, on no day less than a quart, and on some days a little more; that the cow having hay alone constantly ate up her whole allowance, and the one having carrots uniformly failed to do so, and this was the case with both cows while having the carrots; that each cow, when deprived of the carrots, at the close of each trial, fell off in her milk below the quantity given at the commencement, occasioned probably by their becoming dry preparatory to having their calf, which is expected with both about the first days of June next."

It will be remembered by many of our readers, that in the last number of the previous volume we published a short article on this subject; and for the benefit of numerous new subscribers we repeat here that it was stated, in an article from the *Physio-Medical and Surgical Journal*, that "two bushels of oats and one of carrots is better food for a horse than three bushels of oats; that it assists in digesting hay, so that the dung of a horse, thus fed, will contain no undigested hay or oats;" and that it very greatly improves the quality of milk, when fed to cows; while in a soil suited to the crop, 1100 bushels of white Belgian carrots may be raised per acre. We would refer our readers to the article, on the 750th page in the June number.

PROGRESS OF AGRICULTURE IN VIRGINIA.

A CONVENTION of Farmers has been held in Richmond, at which a new State Agricultural Society was formed, and Mr. EDMUND RUFFIN chosen its President. The *Southern Cultivator* well says, that the name and zeal of this gentleman are well known, and there is good reason to hope that the Old Dominion has obtained at last an Agricultural organization that will command the sympathy and cordial support of the whole farming interest. If so, no time should be lost in establishing an Agricultural Society in every county, auxiliary to that of the State. Local clubs and county societies constitute the strength and life of all larger associations, whether State or National. Our Virginia friends will do well not to overlook this fact, and extend their coöperative societies wherever the soil is cultivated within the Commonwealth.

At the Convention that adopted the new Constitution, an excellent address was delivered by Mr. FRANK G. RUFFIN, editor of the *Southern Planter*.



VIEW OF A GRECIAN COTTAGE ON THE BANKS OF THE PASSAIC RIVER, N. J. RICHARDSON. SC.

COTTAGE DESIGNS.—No. VII. .

Good taste in architecture, like good taste in all other things, is the result of education and refinement, and must, of course, be progressive. The gradual improvement made in the construction of dwellings, both in regard to internal convenience and external appearance, from its first origin in the rude hut to the present state of advancement in architectural science, has been slow but constantly progressive; and we look upon the present as a time when this science is being more rapidly developed, and more generally understood, than at any former period in the history of our country. This is as it should be. Neat and beautiful cottages are taking the place of the awkward and inconvenient structures of a former generation, and the refinements and sweets of domestic enjoyment are strikingly exhibited in the tastefully decorated "embowered cot," or the graceful proportions of the "retired villa," surrounded by the "verdant lawn," and unobtrusively conspicuous amid the foliage of the beautiful shrubbery, enlivened by clustering flowers, and deepened by the extending shadows of ornamental shade trees.

The engraving on the opposite page is a view of a Grecian cottage, on the banks of the Passaic river, in New-Jersey, which was constructed with a design to combine all the arrangements that could be conducive to domestic convenience in a small dwelling. Its style is the Grecian, which, although generally supposed to be adapted only to more stately or public buildings, does not, as will be seen, deprive it of its domestic character. It very beautifully harmonizes with the scene in which it is placed. It is constructed of wood, after the Ionic order of architecture, and occupies an elevated position, having a rising, hilly background, and being surrounded by fruit trees of various kinds, with highly cultivated grounds in its vicinity. The main body of the house has two full stories, the first of eleven and the second of nine feet in the clear. The principal floor contains a hall ten feet wide, two drawing-rooms, each seventeen by twenty feet; a dining-room and parlor, each seventeen by sixteen feet in size, with a pantry, and ante-hall containing the principal stairway. In the second story there are four chambers and two bed-rooms; in the basement are a kitchen, two bed-rooms, a store-room, two pantries, dairy, cellar, scullery, and fuel-room. The cottage is an ornament to the neighborhood, the pride and comfort of its occupant, and the admiration of his friends, and cost no more in its erection than hundreds of others, with less than half its pretensions to elegance and convenience.

WHAT SHOULD AGRICULTURAL FAIRS TEACH?

MUCH is to be learned, as yet, in respect to the mode of conducting our annual fairs. The mere list of premiums awarded is of very little benefit. It operates as a stimulus to many minds, who are ambitious of such distinctions, and therefore benefits them, and in this way, indirectly, the community gains. But this is aiming quite too low. It is to impart information upon all sorts of farming operations. It is to satisfy the large majority of farmers that they are not doing what is for their pecuniary interest, either in the selection and management of stock, or in their modes of cultivation.

Mr. Dodge has some very sensible remarks (and he always has such when

he has any) in the *Journal of Agriculture*, and we fortify our own opinions already expressed by citing from him the following passage:

"Their reports tell us who has raised the best corn, and who the best wheat and rye; who has exhibited the best cow, and who the best oxen. This is well, but it is not enough. A large part of the premium, given to a competitor, is given for diffusing the knowledge which will aid another person in producing another specimen like it. But this seems to be forgotten. The 'what kind was it?' and 'how was it produced?' are left out. The unsuccessful competitor and all the rest of the world, are sent back to their farms, to feel their way with such light as their own observation and experience have given them; whereas they are entitled to all the light the recipient of the Society's bounty can give. If a premium is offered for an essay, not only must the successful production be given up and become the property of others, but it must be published to the world. We would not take the farmer's wheat and distribute it among others, but we would take the knowledge by which it was raised, and scatter it broadcast through the land; if he would keep his *knowledge*, we would keep the silver."

RAISING WHEAT.

THE question of the profit of raising wheat in the Eastern, when compared with the Western States, is one of great interest to all. A very carefully written article in the *Hampshire and Franklin Express* embodies much information, and we have made from it the following abstract. Our farmers are very apt to find out what crops are profitable in *their style of farming*, but the masses are very slow to make important changes, even though money might be made by so doing. This writer supposes that we pay, at the East, about fifty per cent. of what we expend for Western flour in freights and profits, so that every time we eat a pound of bread each, from this source, we draw \$20,000 from our pockets, half of which goes to the Western producer, and half is distributed on the way. Though this money is not lost, he thinks this view of the subject worth examination. We give a portion of these statements a place here, because the subject is very important, and we should duly consider it in all its aspects. The writer says:

From statements copied into our last number from the *New-England Farmer*, professing to be the result of very patient and long-continued investigation, it appears that the average value of the wheat and straw on an acre, from 1840 to 1850, was, in

Massachusetts,	- - - - -	\$29 12
New-Hampshire,	- - - - -	31 80
Vermont,	- - - - -	30 80
Ohio,	- - - - -	18 60
Indiana,	- - - - -	16 00
Illinois,	- - - - -	16 00

It appears further that the net profits in the wheat cultivation, after deducting the cost and interest on the value of land, was, in

Massachusetts,	- - - - -	\$11 12
New-Hampshire,	- - - - -	9 80
Vermont,	- - - - -	10 80
Ohio,	- - - - -	10 60
Indiana,	- - - - -	8 00
Illinois,	- - - - -	8 00

If these statistics are accurate, the net profits per acre in wheat-growing in Massachusetts were greater for these ten years than in any of the States compared. It pertains not to the argument to say that the cost of cultivation is greater in the East than in the West, for the extra cost is taken into the account.

And again: Suppose a farmer in our State to have a family that requires twenty bushels of wheat per year. It will require thirty dollars to buy it. Now can he raise those twenty bushels of wheat for his own use, at so good a profit as he can raise something else, which will bring him thirty dollars with which to pay for the wheat? That is the question. It is a question for every farmer to settle for himself. The settlement of it will depend on the nature of his farm. I have very little doubt that a majority of farmers in this State would do well to say at once: We cannot grow wheat; our land is not adapted to it; we must substitute other grains for wheat, as far as possible, and raise such products as will turn for cash, with which to buy wheat so far as we find it necessary. With many, probably a majority, this decision would be correct, beyond a doubt. On cold, rocky farms in our hill-towns there is no doubt that thirty dollars' worth of beef, or thirty dollars' worth of butter and cheese, can be produced more easily than twenty bushels of wheat. On many of our light, plain lands, I suppose it is easier to produce thirty dollars' worth of rye than twenty bushels of wheat. But on some of our lands, especially those in the valley of the Connecticut, is it not easier to raise twenty bushels of wheat than to raise any thing else that will bring thirty dollars? I believe it is; and I believe that the same is true of other and somewhat extensive portions of the State. I do not believe that Massachusetts will ever become a wheat-exporting State, or that she will ever fully supply her own population; but that she should continue to export cash to the tune of some \$20,000 for every pound of wheaten bread which her citizens consume each, on an average, is certainly bad policy, if, as I suppose, extensive portions of her territory would grow wheat, at as good a profit as Western lands, and as good as can be realized from other productions on our own soil.

Now, in order to see whether this last proposition is true, let us compare the profits of wheat-growing with those of other productions, as exhibited in the Transactions of the Hampden Agricultural Society for 1851. Mr. Horace Smith cultivated $7\frac{1}{2}$ acres of wheat, at an expense, including 6 per cent. on the value of the land, of \$128.81; value of crop, \$307.60; net gain, \$178.79. Mr. Justus Bagg cultivated $7\frac{1}{2}$ acres of land, at a cost, including interest as above, of \$159.74; value of crop, \$290.30; net gain, \$130.56. Mr. Walter Cooley cultivated one acre, at an expense of \$23.50; value of crop, \$53.80; net gain, \$30.30. Mr. John Stiles cultivated one acre, at an expense of \$11.00; value of crop, \$56.88; net gain, \$45.88. Mr. R. H. Barlow cultivated one acre and fifty rods at an expense of \$24.00; value of crop, \$60.00; net gain, \$36.00. Mr. Silas Root cultivated three acres at a cost of \$42.50; value of crop, \$137.08; net gain, \$94.58.

These statements embrace an aggregate of 21 acres and 50 rods; and they show an aggregate profit of \$516.11, or a fraction less than \$25 an acre.

Now, by taking the statements of these and other gentlemen concerning their rye crop, we find the average profit per acre less than \$14.

Taking the statements at the same meeting for the oat crop, we find an average profit per acre of a little less than \$27.

The average profit on the corn crops reported at this meeting was a little over \$29 an acre.

These statements taken together show that the profits on the wheat crops there reported were quite as good as the average in rye, oats, and corn.

Land will produce more, and be in a better condition at the end of five years, if five different crops are grown upon it in that time, than with a less number. Now, then, by putting wheat on land once in five years, you will get more than four fifths as much of the other crops with which you choose to rotate, than if you plant two years out of the five with the same crop, making but four different crops in five years. This is an important consideration. The capabilities of the land are increased by variety of production.

The conclusions at which I arrive are,

1. That many of our lands, probably one eighth of the State at least, which would be some 600,000 acres, are capable of growing wheat advantageously.
2. That the cultivation of wheat in these portions of the State may be made quite as profitable as at the West.
3. That its cultivation is just about as profitable as that of other crops which now receive a more general attention.
4. That the value of other crops now cultivated among us would diminish in a ratio much less than that of the increase in the wheat crop.
5. That, consequently, the aggregate value of all our cultivated crops would be increased.

FOR THE PLOUGH, THE LOOM, AND THE ANVIL.

ENGLISH AGRICULTURE.

EARLY PLOUGHING.

OWING to the early opening of spring in England, the work among farmers is not often driven up to a heap as with us. Sometimes the ploughing is commenced as early as the latter part of January, and beans and peas have been then planted, as these are the first crops put into the soil. These are put into the ground by dibbling. The ploughing of an acre of land is considered a day's work; and this part of agriculture is particularly attended to, so that not one foot of the soil may be left unmoved. The advantage of deep ploughing is acknowledged by every one, and the spade, wherever used, always increases the crop. Many farmers, when there is a surplus of hands, will employ them in digging several acres, where potatoes and other esculents are to be raised, and the increase of the produce generally repays this outlay of labor.

CULTURE OF THE POTATO.

The potato in England is an immense crop, although not so great, perhaps, as in Ireland. Upon a large scale, the plough is used, and they are planted in rows; the manure is generally put in with the potatoes, or if spread upon the land, it is turned in upon the seed by the plough. It is thought best not to leave more than three eyes upon every division into which the potato is cut, except the small ones, which of course are planted whole. Growing them in hills is not practised. The rows are ploughed but one way; they are hoed twice, and then moulded up by a double-breasted plough. From four to five hundred bushels per acre is reckoned an exceedingly good yield. The quality of this vegetable here, I think, is quite equal to those imported. The improved varieties of this plant are almost endless, as every seed raised from the

green balls will produce an original, like the pips of the apple. Sometimes this crop has been left in the ground until the spring, and in many winters it will not be injured; but it is always hazardous. Upon a small scale, the ground is often dug up in the fall in ridges, between which the seed is placed by a narrow spade, at the distance of about one foot. This method is found very productive, particularly upon sod ground.

WILD AND CULTIVATED FRUITS.

The wild fruits of the mother country are neither so various nor useful as with us. The crab is indigenous, but the fruit is fit for nothing. The stock is excellent for grafting. The *hautboy*, or wild strawberry, is too small to be of any value, but the blackberry is fine and plentiful. The cranberry and wild raspberry are not found, nor the persimmon, but the cultivated raspberry in gardens is finer and of a richer flavor than those we get here. The large yellow fruit of this species has a quality peculiarly luscious, and is extremely fine. The garden strawberry is also both larger and richer than the fruit raised here. The sloe, a small, useless blue plum, is the produce of the black-thorn, which often claims a sort of brotherhood with the May or white-thorn, but is much inferior for hedge fences, being neither so firm nor durable. The latter is the *Crataegus oxyacantha* of Linnæus, the former is the *prunus spinosa*. The produce of the white-thorn is a berry, growing in bunches, about the size of a pea. These berries afford provision for birds in the winter, and observers prophesy a long, cold season when these are abundant.

The apples we get here may vie with those from any part of the world; but we do not find the same varieties as in the old country. Some of the old stocks, famous once in England, have given place to newer ones. The durable apple called the Nonpareil was formerly one of the most valuable, both for its flavor and the length of time it would keep; but these trees, from some cause, were very subject to the canker-worm, and from that cause their cultivation was neglected. I have often admired, in England, a beautiful, large, red-streaked apple called the pason, superior to any I have ever seen here coming so early to maturity. The codlin succeeds the pason in being fit for early use, and is excellent for culinary purposes, but not so good for the table. The tree is very subject to a disease called the cotton blight, which appears to be occasioned by a worm spinning a sort of web, something similar to cotton, filling the tree with knotty cankers. In gardens, apple-trees are often trained upon stakes, as the vine is in France. They are then called espaliers. This method is economical, as it prevents the trees from overspreading the ground, and the fruit is often finer and more abundant; but it requires a great deal of pruning to keep down the extra shoots, which, if not taken off, would impoverish the fruit.

Quinces are not much raised, either because they are not so much in demand, or because they are not so congenial to the climate. It is but rarely you meet with them, either in the garden or upon the farm. Pears are cultivated to a great extent, and their varieties, richness, and size are, I think, superior to any I have seen in this country. The plum succeeds in England to the greatest perfection. The green gage, the Orleans, the fine blue, and yellow egg-shaped, are fine, and the trees are exempt from those diseases which here so generally destroy the bearers, or cause the fruit to fall off before maturity.

The peach, in England, is not grown upon standard trees, as the climate is not warm enough to ripen this fruit in an open, exposed situation. This lus-

cious produce is raised upon trees trained upon a wall, with a southern aspect, and this is the only mode by which it can be properly matured. The nectarine and apricot are produced in the same manner, and arrive at the greatest perfection. I have never seen these two latter in this country at all equal to what I have eaten in England; nor do I think the flavor of the peach here is quite equal to what I have found there.

GARDENING, &C.

Garden stuff comes to market early in the mother country. Peas are sown in November, and cabbages are planted at the same time, and will head in the following May. It is usual to sow radishes on new-year's day, upon a warm border in the open ground, and by covering them over by short straw or litter, they are sufficiently protected, and brought early into market.

An English gentleman prides himself in the beauty and productions of his garden. The even gravel walks, the ever-verdant box edging, the closely-mown lawn, the weeping fountain, ornamental trees of almost every variety, and a profusion of flowers, are among the first sources of rational pleasure with which he loves to regale himself in his leisure hours, and to entertain his friends in the true style of English hospitality.

Gardening in the mother country is a distinct business, practised by a certain class of laborers who have been trained to it; and they receive higher wages than workmen upon a farm. There are but few farmers or householders who do not employ an individual of this class long enough to keep their gardens in good condition.

The grape does not appear to be indigenous in England, but several imported varieties of the vine, both the white and the purple, bear well, and the fruit comes to perfection, unless the season should prove to be very late. The Queen has, at one of her palaces, the largest vine in the country, yielding, I believe, some thousands of bunches every season. The white sweet-water grape appears to be most extensively cultivated, as it comes to maturity early, and is adapted to the climate.

The cherry is found wild, but the fruit is smaller and more bitter than with us. The large black heart, the white heart, and the early duke, are excellent, both in size and flavor. The last mentioned is a red fruit, and is fit for eating in the month of May. The common red cherry used here for culinary purposes is there trained upon walls, and is greatly appreciated for domestic cooking. There is a late sort of half-wild cherry, called the mazzard, which matures later than any other, and is something like what grows so generally among us; and is valued, principally, on account of its being in season when all others have passed away.

The gooseberry, in England, is free from those diseases which attack it so often here. It grows immensely large. I have seen none here that begin to compare with it. The red currant here, I think, is fully equal to any elsewhere; but the white and the black with us are both inferior in size and flavor. These bushes in this country, owing to the quickness of vegetation, are more liable to throw out suckers, and produce too much wood, which requires pruning off, to prevent the fruit from deteriorating.

Creeping vines which produce the melon, cucumber, squash, and pumpkin, are more uncertain. The melon can be raised only under a frame. The squash I never saw until in this country; nor is the pumpkin raised there for cattle. It is sometimes produced in gardens, like the Indian corn, as a rarity. To sell an old countrymen pumpkin-pies, a dish of squash, a plate of tomatoes,

or of buckwheat-cakes, would indeed raise his wonder, and cause him again to think the Yankees truly a queer people.

A foreigner riding through the mother country has his attention frequently arrested by the mansions of noblemen and country squires, and the remains of abbeys and ancient castles. These are generally surrounded by parks of great extent. In these beautiful, Eden-like inclosures, deer are preserved; while, upon the surrounding farms, game, including the partridge and pheasant, are looked after by a person called the game-keeper, who is always an appendage to these domains of land. The park itself is generally studded with horned cattle, grazing at their leisure, while large flocks of sheep are pastured upon the same. The woods of old English oak are the pride of the land-owners; and an old countryman always regards them with stirred feelings, they are so connected with the national glory of his native soil. These have been the material which have formed the wooden walls of his fatherland. Most of the parks are beautified with clusters and rows of these kings of the forest, which not only add to the grandeur of the scenery, but also to the value of the estate.

GAME LAWS, GAME, PARKS, DEER, ENGLISH OAK, AND POACHING.

The game laws are viewed as a measure of tyranny and oppression; but if there were no enactments of this nature, the game throughout the country would soon become extinct. No person can kill game, even upon his own land, without taking out a yearly license, the cost of which may be about nine or ten dollars, and up to fifteen. Partridge shooting commences on the first of September; that of pheasants in the following month. The partridge is a beautiful bird; in color very similar to the quail here, but considerably larger.

The pheasant is nearly double the size of the partridge, with a bright plumage of blue and other brilliant colors, with a long handsome tail. I have never seen a bird here to compare with it. What is called the pheasant with us, very much resembles the English partridge. The dog used for hunting these birds is the pointer; and whenever he gets near the game, he stands still, with his tale elevated, giving his master time to come within sufficient distance to take sure aim when the covey rises.

The hare and the fox are two productions of the mother country, which, since the wolf has disappeared, yield a great amount of sport to the rich, the aristocratic, and the idle. The hare is a beautiful but timid creature, much larger than a rabbit, and of a redder color. Naturalists say that it sleeps with its eyes open, but for this I do not pretend to vouch. This animal is either coursed by greyhounds, or hunted like the fox, by a pack of hounds from fifty to a hundred in number.

The former method is practised by *beating*, or walking over a field where the hare is supposed to be in its form or lair. The creature seems to be aware of its danger, and you may sometimes walk over it before it will rise. As the greyhound hunts only by sight, and not by scent, he only begins to run when he sees the hare; but his speed is so much more rapid, puss soon becomes his prey. There is an old adage which well describes this sport, where it is said to be

"Five hours' sorrow and sadness,
Five minutes' raving madness."

And, after all, we may well say with the poet,

"Poor is the triumph o'er the timid hare."

When this creature is hunted by the pack, they are generally followed by a

number of persons on horses, who waste most of the day in this sport, as the hare can only be taken by being literally wearied out. It will not often run far from its usual haunts, but will lead the hounds to and fro, sometimes in a circle. I must acknowledge my heart has often misgiven me, when I have witnessed the death and heard the squeal of this timid and beautiful creature.

Fox hunting is similar to this, only upon a larger scale, and Reynard is more knowing than Puss. He will sometimes run upon a fence, swim a river, or even, when tired, drive up another fox and aim to put it upon his old track, that the dogs may follow it, while he lurks away and escapes; for, in the breast of this robber of hen-roosts, like what we behold often in the ways of certain creatures who boast of more honorable kindred, there is but little of what we call brotherly love.

AGRICOLA.

FOR THE PLOUGH, THE LOOM, AND THE ANVIL.

THE TOPOGRAPHY AND AGRICULTURAL PRODUCTS OF LAMOILLE COUNTY, VERMONT.

THE slopes of our hills and mountains are natural for grass, and very productive. On them are fed great herds of cattle and flocks of sheep. The grass is sweet and nourishing; animals that graze on those hill-sides are very thrifty. I am informed by drovers, that the grass-fed beef of Vermont is most sought for in the markets, it being the sweetest and most luscious found in our northern shambles. Great herds of cattle are reared and sold yearly in our county, and more valuable horses are sold from the county of Lamoille than any other section of its extent in Vermont.

The attention of our farmers has been turned to the cultivation of potatoes for several past years, there being some fifteen starch factories in the county. There are manufactured at those establishments annually from four to five hundred tons of starch. The rot or rust, of late years, has been very detrimental to this crop. In some localities it has been nearly ruined; in others half, and others one third.

The farmers of late find the potato flourishes best on newly turned-up land, such as old pastures, without manure, or if manure is used, that which is old and will not ferment. New-made or fresh stable manure that will ferment, is sure to cause the tubers to rot.

Potatoes are almost indispensable in New-England; it would be difficult to subsist without them. They are cooked in a variety of dishes, and are healthy. With many of the poor, they constitute a majority of their fare. The food is light, easy of digestion, and proper for convalescents. They are also the main article in fattening pork. A majority of the farmers have in their hog-house a kettle set in an arch, in which to cook potatoes for the swine.

With potatoes, is mixed the meal of oats, India wheat, and corn. To facilitate the fattening of the swine, many warm the mash each time of feeding. Potatoes in large quantities are fed to our domestic animals without cooking. In the years of 1850 and 1851, there were more than 100,000 bushels of potatoes sent to Boston from this county by railroad. Last season the crop was meagre, some realizing not more than one third the usual amount. Oats are cultivated to a large extent on our light lands; they flourish well, and are a profitable article. The straw is needed for fodder, as such lands are not prolific in grass. Many of the oats are sold out of the county, the usual price

being 25 cents. The wheat raised is not sufficient for home consumption; hence there is a vast quantity of western flour consumed in the county.

The summer of 1851 was cooler than usual, particularly the nights, and the farmer realized a more abundant crop of wheat on the low lands than for several previous years; the price of wheat is from \$1 to \$1.50. Barley is little cultivated. Buckwheat is more attended to. India wheat is still more cultivated, and is nearly all fed to swine. There are many fine dairies in the county, and large quantities of butter and cheese are made for foreign markets. The price of butter is now, May 15th, 15 cents; in summer from 10 to 12; mostly sold in Boston. The product of wool is considerable; the price is usually from 25 to 40 cents. It is bought up in July, by speculators, for the various factories, there being small manufacturing establishments in many of the towns in the county. Much of the wool is worked on shares for domestic use, but little is wrought in families. Hops are quite an item of cultivation, especially in Hyde Park, more being raised in this town than in all the rest of the county. Eight thousand dollars was realized from the sale of hops last fall in Hyde Park, which made money easy among us.

Hyde Park, May 15th, 1852.

ARIEL HUNTON.

THE CULTURE OF CAULIFLOWERS.

"AN Old Philadelphia Gardener," in the *Western Horticultural Review*, giving directions on this subject, says:

From the 15th to the 25th of September sow the seed in an open border. Let the plants remain until the 20th of October, when they will be small, having four leaves. Plant them out four inches apart in a pit or frame, where you can protect them from the winter's frost; let them remain there until the first week in January, then prepare your pit to grow them in.

The pit should be eight feet wide, three feet deep in front, and four feet at the back. Get one load of leaves and one load of hot stable manure—I mean in this proportion; have the leaves and manure well mixed a week or two before you intend to use it, and then fill the pit to what will settle down to twelve or fourteen inches; take then and get your soil, old sod three parts, and one part manure; hog manure is the best; cover your bed over to the depth of at least eighteen inches, dig it nicely, then put on the sashes and keep them close for three days, when the little heat that the manure and leaves have created will be sufficient to give the plants a start. This is all that is necessary, for if there be too much heat it will spoil all. Then mark out your bed, two rows to each sash, which should be three feet ten inches, and two inches for the wood-work of the rafters.

It will be understood that the plants were pricked out in rows, so that they could be taken up with the trowel without breaking any of the ball; set them five plants in the row, and two rows to each sash; you may plant lettuce between each plant in the row, and a drill of short-top turnip radishes between them. After you have all planted, let the sashes remain close for a day or two, when they will begin to show they have taken to the ground. You must then give all the air you possibly can, even taking the sashes entirely off in good weather. They must be covered every night with straw mats and shutters until the first of March, or longer, according to the season.

By the 10th of March they will require to be watered twice a week; leave off the sash every day you can; by the first of April give plenty of

water, and by this means you can grow early cauliflowers as good as in any part of the world. I have grown them four, five, and nearly six pounds. For the truth of this statement as to weight, etc., I refer you to the Transactions of the Pennsylvania Horticultural Society from 1833 to 1836, both years included. I took the premium so long as I cultivated the cauliflower.

PRIMARY FACTS IN FARMING.

"WHY do you put ashes on corn?" is the title of a short article that has lately "gone the rounds" of the agricultural press, and may be regarded as typical of a large number of essays which have appeared in the periodicals of the day. This is a good omen, for it shows that life among agriculturists is not extinct. The cultivators of the soil are inquiring into the principles of their every day's labor, as they have not done heretofore. We verily believe that there is not a trade or profession in the community, in which the principles of their own calling have been so little understood as among farmers. The carpenter may not be able to demonstrate the forty-seventh proposition of Euclid, but he knows that if he would have a brace ten feet long, he may mortise his beams six and eight feet from the joint; and he knows *why*. So he can estimate the quantity of the various sorts of timber and lumber necessary to build a house, of given dimensions, on a given plan. The blacksmith knows that iron implements of a certain sort must be left to cool gradually, while others may be plunged when red-hot into water. If he would hammer out a sharp tool that requires the properties of steel, he chooses to heat it with charcoal; but if he must reduce to a white heat a large mass of iron, he selects "sea-coal;" and in each instance he tells you the reason. The maker of sponge-blackening knows that rapid and entire evaporation is essential to the success of his manufacture, and hence he is careful to mix it with pure, concentrated alcohol. So of other trades and callings: each has a system of facts and principles, more or less complete, by which his labor is directed, a knowledge of which he considers essential, though he often may regret that his acquirements are so imperfect.

But how is it with the farmer? He has sandy land, and gravelly land, and clay land; its minerals are silicious, or slaty, or rich in magnesia, &c., &c. But he treats them all alike, and that treatment is very much like that often received by a poor, worn-out horse, unable to work and unfit to live. His food is poor in quality and limited in quantity. But, while the aged animal roams abroad, unharnessed, the poor land is ploughed and hoed, and ploughed and hoed, year after year, and compelled to surrender whatever yet remains of vegetation in her weak embrace. The same manures are applied to all soils, and perhaps in equal quantities, and this a fraction of what it needs, because its annual yield is not sufficient to feed a stock of cattle competent to furnish manure to supply its absolute necessities. Hence every year, each harvest is less than the preceding. Constant deterioration is inevitable. Dr. Stewart, one of our best chemists, has recently stated that, "for every fourteen tons of fodder taken from the soil," there are carried away "two casks of potash, two casks of lime, one cask of soda, a carboy of oil of vitriol, a large demijohn of phosphoric acid, and other essential ingredients." How long can any soil endure such fleecing? It is worse than decimation, by which warriors used to punish their conquered enemies. It is more like "skinning" them alive—a process under which a living animal must soon give up the ghost.

We have shown, in a former number of this journal, the utter inability of a

soil to produce vegetation, unless furnished with *all* the elements of the required growth. If one is wanting, the case is hopeless; germination is *impossible*. Pure lime, or magnesia, or soda, unmixed, can no more grow flax than can a bed of cast iron. This crop requires, among other things, a plentiful supply of silex. So do all grains and the grasses. So a pure sand, exclusively silicious, has no power to grow grain, for it must have its lime, magnesia, soda, &c. It will not only fail to produce the kernel, but even the stalk requires phosphoric, sulphuric, and carbonic acids, iron, the alkalies, &c.

It is on this principle that the spontaneous growth of plants has been supposed to indicate, to some extent, the nature of the soil. Thus, rhubarb or sorrel requires the oxalate of potash. Pure clay could not produce either. The blackberry, raspberry, &c., require the salts of iron. Some soils are entirely destitute of these. The spontaneous growth of these plants proves that these peculiar elements are accessible in the soil. If a fertile soil has become barren by often repeated crops of wheat, we infer, in like manner, knowing the elements of that crop, that it has been deprived of its phosphoric acid. The remedy, therefore, is equally obvious. We can supply this deficiency at a very trifling cost, and one or two other elements in addition, if needed, and save our barn-yard manure, or at least a good portion of it, for other purposes.

The proper knowledge of two points seems to include the whole science of farm-production, viz.: what do the various crops take from the earth, and how shall this loss be supplied? It is true that we have worn-out lands to begin with, and ere a plough entered the furrow, there was a great diversity in the character and condition of soils. This, of course, should be attended to; and if any elements are found to be wanting, they must be supplied; if any that are present are hurtful, they must be neutralized.

All the elements of plants, however, may be present in a given soil, and yet the land be unproductive. Those elements must be accessible. The food of the plant must be in solution, or at least soluble, and so generally diffused as to be readily absorbed by the rootlets, while the substance of the soil must not be so solid as to interrupt the passage of these rootlets, in their search for food, or prevent the flow of water necessary for their constant use.

But before discussing the subject of manures, let us begin at the beginning; for a large majority of our farmers, even of reading men, have not yet learned these primary facts. We have acted hitherto on the supposition that the mass of our agricultural readers were as familiar with these facts as those who are more intelligent, and that nothing but motive was necessary to induce them to change their modes of farming. This is true in some measure, we doubt not, but we are satisfied that our scientific periodicals too often are aimed above those they design to benefit. Under this conviction we intend to go over this elementary ground fully and plainly, in the present volume.

The number of original elements found in the vegetable kingdom is very limited; and if we estimate that portion only of this list that exists in our ordinary field and garden crops, the number is very materially diminished. A few elements only are common to all vegetables, viz.: carbon, hydrogen, and oxygen. Nitrogen also may be found in many of them.

These elements, again, unite in various proportions, and form a great variety of minerals, and these minerals, in combination with oxygen, one of the constituents of the atmosphere, form many substances, possessing every variety of form and character. Among these we may mention phosphorus, magnesia, potash, soda, lime, &c., &c. If acids are united with these, we have another set of compounds, diverse from all others. Thus, sulphuric acid and potash, when combined, form sulphate of potash. Lime and the same

acid form sulphate of lime. Phosphoric acid and lime form phosphate of lime. These are called *salts*. We may now remark, that all our ordinary vegetable growths are composed of but few of these compounds, (salts, &c.,) and a knowledge of them all is the labor of but a few hours.

To show the limited number of the constituents of plants, we present a table below, being the analysis of Johnston, the distinguished chemist. The figures denote the number of parts in 100, as nearly as practicable. It should not be forgotten, however, that certain gaseous elements are combined in the plant with these, called *organic*, (as these are called *inorganic*,) which are not included in this table.

	Potash and Soda.	Lime.	Magnesia.	Phosphoric acid.	Sulphuric acid.	Silica.
Wheat, - - - - -	33	3	12	50	0.25	1
" straw, - - - - -	13	7	4	3	6	65
Barley, - - - - -	22	3	7	39	0.10	27
" straw, - - - - -	7	10	3	3	2	71
Oats, - - - - -	26	6	10	44	11	3
" straw, - - - - -	29	8	4	3	3	48
Rye, - - - - -	34	5	10	50	1	0.4
" straw, - - - - -	18	9	2	4	1	65
Indian Corn, - - - - -	33	1	16	45	3	1
" stalks, - - - - -	35	8	7	17	—	28
Rice, - - - - -	30	1	12	53	—	3
" straw, - - - - -	14	—	5	1	4	74
Beans, - - - - -	44	6	8	38	1	1
" vines, - - - - -	55	20	7	7	1	7
Peas, - - - - -	44	5	8	33	4	0.51
" vines, - - - - -	5	55	7	5	7	20
Red Clover, - - - - -	36	33	8	8	3	7

SOILING CATTLE IN SUMMER.

WE find an excellent article on this subject in the last *Genesee Farmer*. The writer alludes to the question of the economy of the practice, and expresses his belief that the high price of labor in this country compared with Europe would be a decided objection to it. But around cities, where land rents are excessively high compared with those in rural districts, this seems almost the only mode of securing the luxury of having the fresh milk of the same cow. We knew in our boyhood one gentleman of wealth, who pastured his cow on land for which he might have taken at any time his tens of thousands of dollars; but this, of course, was the result of mere fancy, or of an indisposition to sell. But for many residents in and around cities and in large towns, the question resolves itself into this: Can domestic animals be thus kept without deterioration or an utterly unreasonable cost? But hear what he says:

By soiling, is meant the practice very prevalent in different parts of Europe of keeping cattle in the barn-yard or in stables during summer, and feeding them with green crops. The high price of labor in this country, compared with Europe, is a decided objection to the profitable adoption of the system;

yet it is worthy of trial, and we have little doubt that part soiling may be practised with advantage.

Italian rye grass, lucerne, sainfoin, vetches, and clover, are grown to a great extent in England for the purposes of soiling. Especially are vetches recommended as food for horses, and good farmers usually grow sufficient to supply their teams during the whole summer, so that the horses are never turned out to pasture. We believe several Scotch and English farmers have tried to grow them for this purpose in this country, but have not succeeded, the great heat of the summer being unfavorable. Italian rye grass is now being sown for this purpose, and we think will be found valuable. But clover!—we can beat the world on clover; the soil and climate of America seem to be peculiarly adapted to the growth of this most nutritious and valuable of all green crops, and we are surprised that it is not more generally grown for soiling purposes. There appears to be little question but what an acre of land mown twice or thrice during the summer, will yield double the amount of food to what it would if pastured and kept bare, with nothing to screen the roots from the scorching hot sun. And doubtless the roots of the plant have a corresponding proportion to the amount of produce yielded in leaves, stems, &c.; so that we have not only an increase of food for the cattle, but a greater amount of vegetable matter left in the soil as food for the following crops. We have always been in the habit of giving our horses green clover in the stable during “nooning,” and would earnestly recommend the practice as one that will pay. Whether it will pay to keep the horses up altogether and feed them with green clover during summer, we cannot say, but are inclined to think it would.

For oxen and milch cows we know of nothing so well adapted to the climate, and of which you can obtain so large an acreage product, as green corn—directions for sowing which we gave last month, page 160. If you have not yet sown any, it is not too late, and we will warrant it comes in useful. We never knew any one have more than he knew what to do with. It is seldom sown thick enough; four bushels is in our opinion none too much seed per acre, if sown broadcast. It is, too, advisable to sow the corn at different times in the spring, say at intervals of two weeks, so that you will have some just in the right stage to cut during the whole summer; whereas, if you sow the whole at once, you have either to cut some too green or let some get too ripe, and the stalks become pithy and innutritious, and are not relished by the cattle. We do not recommend the practice of growing corn and making it into fodder for winter use. It is a troublesome business curing it properly, and we prefer to get grain as well as stalks in the ordinary way; for though there is probably a destruction of nitrogen, and much of the soluble saccharine matter is converted into woody fibre, in the process of maturing the seed, yet there is doubtless more nutritious matter in *grain* and stalks than there would have been had it been cut and converted into fodder before the seed was formed.”

FACTS ABOUT POULTRY.

THE following paragraph is taken from an exchange, we know not what, and is given to our readers under the conviction that the writer understands his subject. The reports made by different poultry breeders, in relation to the profit of keeping hens, differ more widely than reports relating to any other animal. There must be a reason for this, and this reason probably

consists in the want of skill in providing for them in the most economical manner:

"We have had some little experience in the 'hennery,' and have found a great secret in getting a supply of eggs through the whole season, but not in driving the hens up hill, or in feeding them exclusively on gravel, or in supplying them with chalk nest eggs. The whole secret consists in giving them plenty of food, grain and flesh; any of the grains will answer, as the chicken's mill is very convenient. For six or eight months in the year, the chickens will supply themselves with animal food, in the shape of insects, but the rest of the time feed them regularly with flesh as well as corn. Boiled potatoes are an excellent food for fowls, but with it they want grain of some kind, and flesh also. In our long hot summers, poultry are inclined to become lousy; but if clean, good ashes are placed convenient to the hen-house, the hens will dust themselves in them until the vermin disappear. Nature is their teacher, and here is the unerring guide. A good shelter should be procured for the chickens to roost under; the manure of chickens, properly saved, will repay all expenses of feeding. It is a great error to crowd too many chickens together."

FRUIT TREES AND USE OF BIRDS.

PROFESSOR MAPES has an article in the *Working Farmer*, on cleansing the bark of fruit trees, in which he recommends Bleacher's No. 1 soda as a wash. He says that it is a superior kind of sal-soda, containing less than the usual quantity of carbonic acid, and may be made by heating the ordinary sal-soda of commerce red-hot before use. Indeed, sal-soda itself will answer the purpose, but not so well after having effloresced as usually found in the shops. This wash, applied to the surfaces of fruit trees in June, will be found very serviceable, both for the destruction of incipient fungi and to prevent the lodgment of insects so prevalent this month. It will leave the bark of the trees to which it is applied clean and bright, and, if assisted by a rubbing, will give to plum, cherry, peach and many other trees a polished appearance. Those who have neglected to remove the peach-worm from the collar of the tree, at or below the surface of the soil, should now do so, or its depredations will destroy the tree. The shortening-in process for peach trees recommended in our former numbers should no longer be delayed. The improvement to the durability and appearance of peach, nectarine and apricot trees by being properly shortened-in, and producing the uniform result of round heads, equal length of branches, and less liability to be injured by high winds, is sufficient to warrant the practice. Young pear trees should have the ground surrounding them mulched with refuse brush, straw, or some other material, to prevent the heat of the July suns from sending moisture into the roots, hot and unfriendly to their growth, recollecting to remove this mulch for a time toward the latter part of the season, so as to prevent too late a continuance of growth, and thereby subjecting them to the frozen sap-blight. Those who have not placed proper accommodations for birds, in the form of wren houses, &c., in their trees, will have great occasion to attend to the destruction of insects. Apricots and other fruits which have set too heavily should be thinned out, so as to secure good results. Espalier trees require strict attention, and middle-sized shoots may be substituted for old branches to be cut away. Grape vines may be looked to, useless young shoots rubbed off, and such shoots as are fruited and require stopping by pinching off their

ends beyond the fruit, may now be done. Newly planted trees should be occasionally watered in the dry hot weather. The June bug will now make its appearance on grape vines, and when young and feeble may be caught in myriads in cups containing water touched against the lower sides of the leaves early in the morning. They will fall into the cup, and may be readily crushed under foot when a sufficient number is received.

THE WONDERS OF THE AGE.

NEW MOTIVE-POWER FOR AGRICULTURAL AND MECHANICAL PURPOSES.

THE "wonders of the age" are numerous, and may be found in every advertising sheet in the country. But there are "wonders that are wonders," marvellous discoveries, as inexplicable as any of the delusions of this deluded age. Who would expect, by clapping his little finger upon an ivory button in some upper room, to set to ringing all the church bells of a large city? Hobbs' lock has a world-wide fame, but in some respects a Yankee has beaten him; for *he* has in operation a lock *without any key-hole*, and which is operated without the insertion of a key. The only agent that can say "Open, sesame," to effect, is not portable, and is invisible.

Electro-galvanism, or Electro-magnetism, is a modern science. It was almost unknown until within a quarter of a century. It now lifts up its head almost above its fellows, and puzzles the ingenuity of the curious, and the skill of the learned; but by-and-by it will walk familiarly among our households. It will take its place among ploughmen, among reapers and mowers. It will thresh our grain, churn our butter, rock our cradles, and carry us to market or to church. He who lives twenty years will see much of this. This mighty agent is now shut up in the laboratory and lecture-room, but ere long we shall have him out in our machine-shops, and working for blacksmiths, and carpenters, and farmers. We have begun to break in this young colt already, and he will soon drive among corn. As yet, however, to borrow a figure from our correspondent below, we have only made a policeman and a sexton of him. Yes, he already makes an excellent watchman and courier, and ere long will become currier and watchmaker.

By this same agency, our time is accurately kept, and longitude is reckoned with so much accuracy, that there is no difficulty in determining by it the difference between that of the eastern and the western ends of our capitol. These clocks never need winding up, for they have no weights, and the main-spring is in no danger of breaking, for it has none. Are we joking? We have seen all this with our own eyes, and we honestly anticipate all that we have prophesied.

Electro-magnetism, what is it? We cannot tell, nor do we purpose to set forth all of the little that we can tell on this subject. Most people have seen a galvanic battery. It consists of a series of double plates, of different metals, generally of copper and zinc, set in a box or trough, (A,) which is filled with sulphuric or some other acid, much diluted. The plates of each metal are united together, and the ends of the box are its poles. Wires lead from each of these outer plates to any desired place for operation. When the ends of these wires are brought into contact, the electro-magnetic fluid passes, and if your finger is between and in contact with them, it receives the current as long as the machine is in operation, which may be for a long time.

The circuit may be completed or broken by the hand pressing on a knob

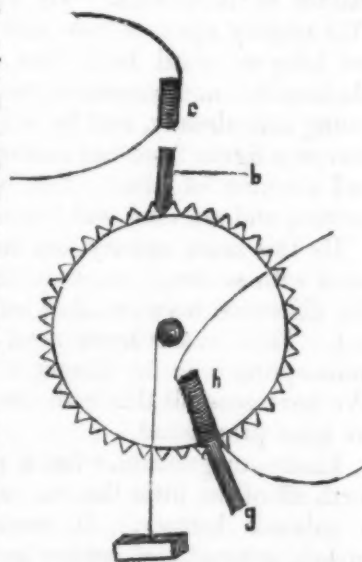
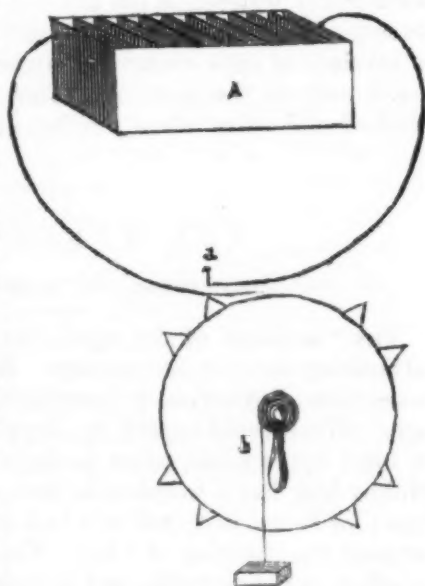
or button, *a*, or by turning a cog-wheel by a crank, as at *b*, as the diagram is drawn : either process brings the wires in contact ; that is, completes the circuit. If the knob was changed to the lower wire, and the tooth of the wheel applied to the upper, the two wires resting in contact, the action of either the knob or wheel would *break* the communication. In the instrument hereafter explained, the crank is used for breaking the connection, in the "little cast-iron boxes" at the corners of the streets, which is by-and-by described as "the signal circuit," and which is designed to give notice at the central office ; while the other form, the knob, is used at the central office, for ringing an alarm.

If, in a part of this circuit, the wire should be wound with cotton, like bonnet wire, and varnished, and then coiled up in the form of a hollow cylinder around a piece of steel, as at *c*, in the second figure, that steel becomes a magnet the instant the wires are brought together, and ceases to be so the instant they are separated. In these diagrams we have used the straight cylinder form. But in fact, for reasons obvious to those who are versed in the science, it is invariably bent into the horse-shoe form.

Now suppose a cog-wheel is confined by a piece of iron (*b*) dropping between the cogs, as in the diagram. If that iron is drawn up by magnetism or otherwise, the wheel may move round, and will do so, if it has a weight attached to a cord round its axis. Complete the circuit as described before, and *c* becomes a magnet, which attracts the slide *d*, and the weight attached puts the wheel in motion. This revolving wheel may move the hammer of a bell by being connected with proper machinery, or may do any other service, to the extent of the motive power, which in this arrangement is the weight suspended from the axis.

Only one practical difficulty occurs here, to wit, the friction between the sliding iron and the wheel. But this is easily obviated by a little additional machinery, requiring a modification in form, though without a change of the principle.

The motion of this wheel sets free an arm of iron, on the end of which is a heavy iron ball. As the position of this arm is nearly perpendicular, this process occasions very little friction. But the ball, falling through a quarter circle, acquires great momentum, and is able to free another wheel, which is constructed after the fashion of the wheel which governs the striking of a common clock, and which controls the motions of a very heavy hammer. This hammer is then drawn up again, and the other parts of the machinery



are adjusted, by the direct action of the weight suspended from the axis of the wheel, and all is ready for another blow.

It is obvious that, in a long circuit, you may have a dozen or a hundred of these magnets, as may suit your convenience.

The wheel described above (Fig. 2) may be set free by a process the reverse of that already given. If the sliding iron is placed *below* the wheel instead of above it, as at *g*, it must be drawn up by the magnet *h*, if the wheel is *to be stopped*. Otherwise it will fall by its own gravity. This expedient is used in the *signal* circuits, the wires being in contact through their whole length, unless interrupted by the action of one of these wheels.

We are now better prepared for the description below, given by our excellent and scientific friend, Mr. C. C. Coffin, who is in the management of the central office at Boston. Any gentlemen or ladies who may avail themselves of his suggestion, and visit this wonderful machinery, will find in Messrs. Farmer and Coffin not only gentlemen of science, but the most flattering courtesy and kindness; and they will only wonder that those who are so frequently called upon in this way should find time and disposition so kindly to explain the more *intelligible* parts of the system.

FOR THE PLOUGH, THE LOOM, AND THE ANVIL.

THE TELEGRAPHIC FIRE ALARM.

THE world was astonished when Dr. Franklin bottled up the lightning, and still more amazed when Professor Morse taught it the English language. They are excited again, because Mr. Farmer, of Salem, and Dr. Channing, of Boston, have made it a police agent and a bell-ringer.

A brief description of the system will be our subject. But we must first say that it is one of the hardest things in the world to describe complicated machinery, and if we can give a description which will be understood, we shall succeed beyond our expectations.

From the City Building in Court-square, Boston, proceed circuits of wires which extend all over the city. One set of these is connected with different church steeples, and the other with little cast-iron boxes at the corners of the streets.

The city is divided into seven fire districts. In these districts are forty cast-iron boxes, and nineteen bells. The boxes and the bells are connected with "the City Building" by circuits of wires distinct from each other. The box circuit is called the *signal* circuit, and the bell, the *alarm* circuit.

Now, suppose that a fire breaks out. A watchman runs to the nearest box, unlocks it, and turns a crank; the crank turns a toothed wheel, on one side of which are teeth that represent the number of the district, and on the other the number of the box in the district. When the watchman turns the crank, each tooth successively moves the spring, the action of the electricity rings a bell in the office at the City Building, and starts a Morse register which records, upon a slip of paper, the number both of the district and station. A man is on duty constantly at the office. The moment the bell rings, he turns to the paper and reads the figures. He then presses down an ivory key, corresponding to the number of the district, and instantly the nineteen bells strike the number of the district.

Let us now go into a church tower and discover the power that has been

making such a demonstration, which has sent the engines rattling through the streets.

We find a machine very much like the striking part of a steeple clock, with a great weight attached, to tug away when wanted.

On one end is an electro-magnet. Close by the magnet is a piece of steel upon an axis. Resting upon the steel is an armature fastened upon an arbor. At nearly a right angle with the armature is another arm, with a ball on its top, also fastened to the same arbor, but having a little inclination.

When the electricity is sent through the circuit of the wires by him who presses down the keys, the steel is attracted towards the magnet, the arm resting upon the steel drops down, and the ball follows of course, and attains such momentum that it raises a catch that holds the machine from moving. The moment the catch is raised, the weight pulls down like a giant and raises the great hammer, which then falls upon the bell with a startling crash.

The moment the hammer falls, the mechanical contrivances of the machine replace all these pieces in a condition for a second blow, which is given at the will of the operator at the central office. The operation of the whole thing is but the work of a moment. In one half minute from the time the watchman turns the crank, the whole city knows the locality of the fire. It would be tedious to go through with a description of all the machinery connected with the system. Enough has been said to give a general idea of its operation. It is beautiful and efficient, and answers the expectations of the most sanguine. The system has cost the city about \$16,000, and is one of the best investments they have ever made.

We would gladly speak longer upon the subject, but time cuts us short. But it is one of the inventions of the age which will tell directly upon the welfare of the community. Other large cities will probably be swift to adopt it, when its utility is made known. It has attracted great attention, and strangers visiting Boston cannot spend a half hour more pleasantly and profitably than in visiting the central office.

PLOUGHING MATCH AT BROCKPORT.

THE first Ploughing Match of the season, under direction of the Monroe County Agricultural Society, took place on the farm of Hon. E. B. Holmes, in the village of Brockport, on Thursday last, 17th instant. The weather was not altogether propitious, as it rained during a great part of the forenoon. A commendable show of Agricultural Implements was observed, and the number of farmers present was about equal to the attendance at the State Fair ploughing match last fall, and much larger than at any County Fair. To the farmers of Sweden, and the agricultural machinists of Brockport, the success of this match is to be credited. They will be remembered for their interest in this thing. Horace J. Thomas, Esq., of Brockport, made an address on the ground which was favorably received.

Sixteen teams were entered for the match, and a commendable spirit of competition evinced. The work was well done on all hands.

We extract the following from their Report on Implements:

The Committee's attention was called to a new article, called the "Corn Hoeing and Dressing Plough." It is so constructed with a point and two hinge wings, or mould-boards, with steel cutting edges at the bottom, that it not only cuts up all the grass and weeds, but by a little skilful manipulation

it hoes the corn. The Committee recommend it as a valuable labor-saving implement. From Oliver S. White, Brockport.

J. Ganson & Co. exhibited a Wheat Cultivator, combining the improvements of F. P. Root, a prominent farmer of Sweden, which the Committee are disposed to view as new and useful. The tongue or pole is loose like that of a wagon, and the machine is balanced behind on a guide roller, which allows it to accommodate itself to uneven surfaces, and greatly reduces the burden and labor of the team.

They also had on trial a Corn Planter, a simple and cheap machine, that dropped from four to seven kernels regular. In level and uniform soils it cannot fail of doing the work perfectly. By inserting teeth it becomes a cultivator also, and, if the inventor would add revolving scythes, so that it could cut up the stalks and load them, Johnny cake would be cheap indeed.

Killam & Velleau, of Churchville, had on the ground, and exhibited at work, a Gang Plough Cultivator, of a very peculiar and ingenious construction. It is so contrived that it can work from one to six inches in depth, and performs first-rate cross ploughing. It is arranged for two or three horses, and performs its work beautifully.

Chappell, Whiteside & Barnett had several well-constructed and highly-finished ploughs on exhibition, called No. 10 and 12 Curtis' Plough, which are held in very high estimation in that quarter. They have a contrivance which not only strengthens the plough, but allows a change of the beam to the right or left, whereby the furrows are made of any width desired. Also, the Cayuga Plough.

MINERAL AND VEGETABLE POISONS.

CASES of accidental poisoning are not of unfrequent occurrence, and in their effects are so sudden and fraught with such imminent danger that not a moment is to be lost. Under such circumstances, although a physician should in all cases be *immediately* called, it too frequently happens that it is then too late to apply the proper remedy, and death is the inevitable consequence. For the information of any who may be placed in circumstances to require them, the following plain directions, in regard to the most appropriate remedies and their application, are presented to our readers:

TARTAR EMETIC.—This is sometimes taken in an over-dose; and if no precautions are taken to counteract its effects, it must, consequently, prove fatal. Whenever such a case occurs, drink freely of lukewarm water, and tickle the throat with a feather, to produce, if possible, immediate and free vomiting. If this cannot quickly be induced, let the patient drink freely of a very strong decoction of *Peruvian bark*, to decompose and neutralize the poison. As a substitute for *Peruvian bark*, if this cannot be procured, very strong doses of *common tea* should be administered until the former can be obtained.

LAUDANUM OR OPIUM.—When taken in too large a quantity, it must be withdrawn from the stomach by active emetics, or tickling the throat with a feather. A full dose of *ipecac*, or three grains of *tartar emetic*, are the best remedies for this purpose; but if not at hand, use mustard-seed tea freely until vomiting is induced. The stomach pump may be used to remove what remains of the contents of the stomach. After the patient has vomited freely, he should drink plentifully of vinegar and warm water, and be kept constantly moving, not being suffered to be still a moment.

SALTPETRE.—This is not unfrequently mistaken for *Glauber's* or *Epsom*

salts, and as such by mistake administered for those articles, producing fatal results to the patient. First, vomit freely with mustard-seed tea, and give freely frequent doses of warm flax-seed tea, or a tea made from slippery-elm bark. When the pain and distress in the stomach is very severe, give twenty-five to seventy-five drops of laudanum every half hour until the patient is relieved.

LUNAR CAUSTIC.—A table-spoonful of common table salt dissolved in water, and repeated every forty-five to sixty minutes for three or four hours. Let the patient also drink freely of warm flax-seed or slippery-elm tea, to promote vomiting.

OIL OF VITRIOL, OR OTHER MINERAL ACIDS.—For these, administer large doses of magnesia, or copious draughts of warm strong soap suds or pearl-ash water.

NEW-YORK HORTICULTURAL EXHIBITION.

WE have visited this exhibition with much pleasure. Considering the *youthfulness* of this Society, a new competitor among the old and experienced societies in some of the neighboring States, we think that all concerned in its management are entitled to great credit, and deserve the grateful thanks of all lovers of beautiful flowers.

The collection is very large. Indeed, the first and chief criticism we should make is, that so many flowers, of no special merit, either for beauty of bloom or rarity of the species, were permitted to cover up and conceal the few fine flowers and rare species that really deserved attention. The number of plants exhibited is a poor criterion of the character of a show. The great object is to excel in the quality of the specimens presented. If our friends at the East, who are accustomed to send contributions on similar occasions, were to be equally profuse in the quantity exhibited, visitors would be lost in the multitude of plants. No hall in the metropolis of New-England would contain them. The *variety* of flowers was very respectable. Those which so extensively ornament our gardens, our parlors, and our conservatories, the Geraniums, the Acacias, the Azaleas, the Calceolarias, and the Euphorbias, with the Cactus tribe, &c., &c., and those rarer ones which belong particularly to the greenhouse, in great numbers, were visible upon the tables. The Camellia was there, but, of course, *not in bloom*. That queen of flowers, the Rose, was very extensively represented, considering the season, from the grounds of Messrs. D. Boll, J. B. Lenoir, Joseph L. White, and Matheo Donadi.

Some rarer and very beautiful plants were also on exhibition. The *Zamia horrida*, from Thorburn, a very peculiar plant; a fine evergreen, the *Dacrydium cupressinum*, from the same, the *Hydrangea japonica*, and *H. quercifolia*, both we believe, from Isaac Buchanan, the *Dracæna terminalis* from Thomas Hogg and Sons, the *Bonapartea juncea*—a very rare plant from the same; the *Maranta lebrine*, with its huge striped leaves; the *Cycas revoluta*, or sago palm, with a trunk like a pineapple, and others, the names of which we cannot indite.

The *Nymphæa rubra*, and the *Nepenthes distillatoria*, or Pitcher plant, the former by Thomas Hogg and Son, deserved and received much attention.

Very handsome table bouquets were there also, and flat or basket bouquets.

The first premium for basket flowers was announced upon the cards as awarded to Walter Park. For cut flowers, first premium to John Cranstoun, and No. 2, to J. E. Rauch. Philan and Son, Charles Rawolle, (?) and Mrs.

T. L. White, Charles More, florist, Mrs. E. Holbrook, and Maythorne and Knight, each contributed liberally to the display.

A very handsome basket bouquet was exhibited by Andrew Frazer.

The vegetable garden presented its productions, and many of them were very fine—asparagus, lettuce, cauliflower, mushrooms, spinach, rhubarb, cabbage, potatoes, cucumbers, and strawberries. Some of the last were called “mammoth.” We have seen many much larger and handsomer, and referred to some such of the growth of the present season, in our last as we do also in the present number.

The first premium for cauliflowers was awarded to William Cranstoun, gardener to E. A. Stephens, Esq., and that for lettuce to George Saul, gardener to Shepherd Knapp, Esq.

The most remarkable plant in the Exhibition was, of course, the *Victoria Regia*. The *Tribune* (which by the way seems almost intoxicated under the excitement of the show, and is exceedingly enthusiastic in his commendations) has a very full account of the cultivation of this most curious plant, from the *Horticulturist*, written by Mr. Downing, its very accomplished Editor, which we extract, as follows :

“Mr. Cope’s success with the culture of this most gigantic of water-lilies is one of the most satisfactory triumphs of American horticulture. An aquatic whose leaves measure six feet across, and that demands a pond under glass twenty or thirty feet across, the water in which must be kept perpetually warm and in motion, is not a plant which one person in a thousand would undertake the culture of, for the first time in the United States, and succeed. But Mr. Cope not only succeeded more perfectly last summer in growing and blooming the *Victoria*, in more magnificent proportions than it has ever been grown in the finest private establishments in England, but he has, to our great surprise, succeeded in causing it to bloom superbly all through the winter. So far as we know, this has never been accomplished before ; and to the fortunate conjunction of skill displayed at Springdale, and the abundance of light on this side of the Atlantic, the development of this new and most valuable characteristic must be attributed. We commend the following interesting account of the culture at Springdale, by Mr. Meehan, to the attention of our readers, who will not fail to notice also the liberal offer of the popular ex-President of the Pennsylvania Horticultural Society.”

Mr. Meehan’s statement is this :

“The interest which characterized the flowering of the *Victoria* in this country continues unabated. The success which has crowned the efforts of Mr. Cope, and the abundant reward which the plant and its flowers afford its beholders, are inducing others to attempt its cultivation. It has occurred to me that a few notes on its progress here to the present time would be interesting, as well as seasonable.

“It would not be extravagant to call the beauties of this plant *unsurpassable*. Like the gigantic idea its leaf-structure originated, the Crystal Palace, it stands among its class alone and unapproachable. Its flower has been compared to a colossal specimen of the night-blooming *Cereus*, (*Cereus grandiflora*.) In certain respects this comparison is just ; as in the general appearance of the flower, and its delightful fragrance. But when we proceed to examine each beauty separately, all comparison with any other flower must cease. It is not possible to select one property more than another, the which most to admire. It is every thing to be wished for. A *Victoria* house is a perpetual conservatory, filled with ever-blooming flowers. Since its first flowering, in August last, this plant has produced, on an average, two flowers a week.

Up to April first, there have been fifty-eight flowers on the same plant. Nor is this ever-blooming principle one long routine of wearisome monotony, for no two flowers can be said to be exactly alike. At the appearance of every bud there is something to anticipate; some new beauty, as yet unknown, to excite our curiosity, and raise up expectation. When they expand in the evening, they may be of any shade, varying from the purest white to richest cream, till they close in the morning, as if to exhibit the change in their calyx from a greenish to a crimson hue. Soon after, the flower expands a second time, and exhibits the same flower quite metamorphosed; sometimes of the deepest pink; sometimes rich with crimson; and sometimes feathered with crimson and white, as if in playful mimicry of the delicate markings of a prize tulip. It is a strange flower—so grand, yet so accommodating! Promise a flower to a friend; he comes; the bud is only there. He is much disappointed. The occasion was an especial one—a marriage festival, perhaps, not perfect without the presidency of this queen of flowers. He shall at any rate have the bud. It is cut and placed in a box, with a little warm, damp moss, and a heated brick, and the top covered over. He reaches home, and the box is opened, and a perfectly formed flower lies exposed to view! What can be more magical? Verily, nature, in the Victoria, throws the tricks of Monsieur Hebert, described in your last, far into the shade.

“Nor does this ever-blooming, ever-changing property alone render it so admirable. The odor of its expanding buds is in itself a treasure. A whole house crowded with blooming *Olea fragrans* would not excel one bursting lily flower.

“In a physiological point of view, the flower is no less interesting. Few plants show better the influence which light has on vegetation. When the plant here was in the most advantageous condition in this respect, last fall, the leaves averaged about six feet in diameter. About six weeks ago they seemed to have declined to their minimum size; being then three feet eight inches. Now, as the light increases, the leaves exceed four feet. When there is abundance of light, the leaves turn up at the edges. In winter they lose this peculiarity; they now seem to be resuming it.

“Our plant delights in a water temperature of 85°; below 80° or above 90° an injurious effect is, at this season, perceptible.

“I am informed that in England they durst not keep the water temperature higher in winter than 60° or 65°. This must be owing to the short supply of light to an English winter. So far, I think, we beat the English cultivators in Victoria growing. However, in the peaceful competition of horticulture, John Bull will be glad to learn that his brother Jonathan has gone ahead a second time *on the water*. Our plant ripens its seed perfectly, even in the midst of winter. The seed germinates readily under the same treatment as that given to the parent plant. Plants frequently come up in our tank from self-sown seed. One of these, not four months old, recently bloomed in a box six inches deep, eight inches wide, and ten inches long, the box being plunged in the large tank. The leaves were two feet in diameter, and the flowers seven inches across. This plant was growing near the water-wheel, which may yet be found more useful than some are disposed to admit.

“Skilful treatment may overcome the difficulties apparent in out-door summer cultivation. I do not consider a very *high* temperature essential; but whatever temperature it will grow in must be maintained with *regularity*. It will evidently flower and grow in a small space; but to realize the full effect of its majestic beauty, good room must be afforded.

“Is the plant an annual or a perennial? This has not yet been definitely

settled. I should not be surprised to learn that it is one of those plants which are annual in some countries and climates, biennial in others, and yet still in others perennial; one of the same class as the *Ricinus communis*, for instance. In England they incline to set it down as a perennial. Our light and climate may advance it more speedily to maturity. An English winter, though it deprives the grower of flowers, may in consequence add to its longevity, and, although it is being classed among perennials, only lengthen out for a few months its biennial existence. But all these things have yet to be known.

"Mr. Cope has kindly permitted me to state that he will be happy to supply any one forming a tank for the Victoria with a plan for it; and I should be pleased to give any desired information to those desiring it, as well as to record any future observations in the pages of the *Horticulturist*, should the editor encourage them.

THOMAS S. MEEHAN.

"Holmesburgh, Pa., April 4, 1852."

One of the leaves of this plant measured nineteen feet in circumference, and one of the flowers, fourteen inches in diameter.

The list of Premiums awarded is taken also from the *Tribune*:

PLANTS, FLOWERS, BOUQUETS, BASKETS, &c.

Thomas Hogg & Son, best 6 Hot-house Plants,	-	-	-	-	\$5 00
Louis Menand, best 6 Green-house Plants,	-	-	-	-	5 00
Robert Rennie, 2d best Green-house Plants,	-	-	-	-	3 00
Geo. Gamgee, Gardener to Wm. C. Langley, Esq., best 6 Pelargoniums,	-	-	-	-	5 00
Geo. Gamgee, Gardener to Wm. C. Langley, Esq., 2d best do.,	-	-	-	-	3 00
John W. Wood, best 2 Fancy Pelargoniums,	-	-	-	-	2 00
J. E. Rauch, 2d best 6 Fuchsias (no first),	-	-	-	-	2 00
Wm. Chalmers, Gardener to Thos. Richardson, Esq., best 20 Cacti,	-	-	-	-	5 00
Alex. Gordon, Gardener to Edwin Hoyt, Esq., best tall-growing Cactus,	-	-	-	-	2 00
John W. Wood, best 6 Verbenas,	-	-	-	-	3 00
Andrew Maythorn, 2d best Verbenas,	-	-	-	-	2 00
Wm. Davidson, best Seedling Verbena,	-	-	-	-	3 00
J. E. Rauch, 2d best Seedling Verbena,	-	-	-	-	2 00
Charles More, 2d best 8 Roses in pots (no first),	-	-	-	-	3 00
M. Donadi, 2d best 12 Pansies in pots (no first),	-	-	-	-	2 00
M. Donadi, best 3 Carnations in pots,	-	-	-	-	2 00
John W. Wood, best 4 Petunias in pots,	-	-	-	-	2 00
John Cranstoun, best display of Cut Flowers,	-	-	-	-	5 00
J. E. Rauch, 2d best display of Cut Flowers,	-	-	-	-	3 00
John W. Wood, best show of Pansies,	-	-	-	-	1 50
D. Boll, best general display of Roses,	-	-	-	-	5 00
J. B. Lenoir, 2d best general display of Roses,	-	-	-	-	3 00
Isaac Buchanan, best Seedling Rose,	-	-	-	-	2 00
Robert Reid, best pair of Hand Bouquets,	-	-	-	-	3 00
Willia Wilson, 2d best Hand Bouquets,	-	-	-	-	2 00
James Angus, best Parlor Bouquet,	-	-	-	-	2 00
Willia Wilson, 2d best Parlor Bouquet,	-	-	-	-	1 00
Walter Park, best Basket of Flowers,	-	-	-	-	3 00
John Young, 2d best Basket of Flowers,	-	-	-	-	2 00
William Chalmers, Gardener to Thomas Richardson, Esq., best display of Cinerarias,	-	-	-	-	3 00

FRUIT.

Henry Van Horn, best 2 pounds of Cherries,	-	-	-	-	2 00
William M. White, best quart of Strawberries,	-	-	-	-	2 00

J. W. Hayes, 2d best quart of Strawberries, - - - -	1 00
William M. White, best seedling Strawberry, - - - -	2 00
J. Hartmann, Gardener to William H. Paine, Esq., 2d best display of Strawberries (no first), - - - -	2 00
Shepherd Knapp, Esq., 6 splendid Lemons, grown under glass, - -	1 00
A plate of beautiful Nectarines, grown under glass, from W. C. H. Waddell, Esq., too late for competition.	

VEGETABLES.

George Saul, Gardener to Shepherd Knapp, Esq., best 3 bundles of Asparagus, - - - -	2 00
William Cranstoun, Gardener to Edwin A. Stevens, Esq., best 3 heads of Cauliflower, - - - -	2 00
Julius Hartmann, Gardener to William H. Paine, Esq., best half-peck of Potatoes, - - - -	2 00
Alexander Gordon, Gardener to Edwin Hoyt, Esq., best brace of Cucumbers, - - - -	2 00
Alexander Gordon, Gardener to Edwin Hoyt, Esq., best 12 stalks of Rhubarb, - - - -	2 00
George Saul, Gardener to Shepherd Knapp, Esq., best 6 heads of Lettuce, - - - -	1 00
Julius Hartmann, Gardener to William H. Paine, Esq., best general display of Vegetables, - - - -	5 00
George Saul, Gardener to Shepherd Knapp, Esq., 5 beautiful Cucumbers, - - - -	1 00

RIPENING AND PRESERVING FRUIT.

[SOME of our exchanges are discussing the question, what is the best mode of preserving fruits? We have some knowledge, from personal observation, of the method referred to in the extract below. Mr. Curtis has undoubtedly succeeded in preserving some fruits and in ripening others, *and at a given time*, which are usually found to decay while they are ripening. Others, however, have seen more than we have, and we suffer them to speak for themselves. We copy the following from the report of a Committee of the Massachusetts Horticultural Society:]

From the facts now detailed, as well as from their own observation, your Committee feel justified in expressing a confident opinion that, after many unsuccessful trials of various processes and different methods, Mr. Curtis has succeeded in discovering a method of preserving fruit for a very long, if not for any desired period, and that this method is capable of a practical application.

Although Mr. Curtis has, as he states, preserved other varieties of fruit besides pears, yet, so far as the personal knowledge of the Committee extends, the fruit subjected to his process has, thus far, been mainly of the latter description; and they feel, before arriving at a conclusive opinion respecting the value of this discovery to the Society, that experiments with other species of fruit, as peaches, plums, &c., &c., should be made, and an opportunity be offered for their examination after being subjected to the process. With a view to the gratification of the Committee in this particular, Mr. Curtis is

about commencing, under their inspection, some experiments with the early and soft fruits, to be continued with other kinds as they come into season.

In addition to the discovery of a mode of preserving fruit, Mr. Curtis seems also to have succeeded in finding out a process by which such varieties as are difficult to ripen may be brought to perfection—a discovery of almost as much interest to cultivators as that by which the season of all varieties is so greatly prolonged, and their safe transmission to distant places secured.

H A Y - M A K I N G .

WE collect the following good advice on this subject from different sources. The first is from the *Journal of Agriculture*, in which Mr. A. W. Dodge advises that we begin haying early; do not wait till your fields generally are ready for the scythe, but strike into the clover, the white weed, and light grass, betimes, so as to be prepared for your best grass when it is just in the right state for cutting. *When that is*, the farmers in New-England are pretty generally agreed, is when the grass is in the bloom; and not, as we believe is the time of cutting in some other States, when the grass is in seed. The best hay that comes into Boston—such, for example, as that from Ipswich—is cut when the grass is in blossom; and it thus retains its bright color and sweet hay smell, besides weighing heavier than if cut after it became dry.

Get in your hay as you go along, and incur as little hazard as possible. We find this method, with some variation, mentioned as being practised more than a century ago by Ebenezer Silliman, in Connecticut. He says: "I mow my grass and let it lie in the swath till the dew is off the next morning; and then I turn and spread my hay, and let it lie in the sun till the after part of the day; and then I rake it up and cock it well, and never meddle any more with it till I cart it into my barn or stack it; (and if the weather be good, it will do well to cart after it has stood two days in the cock.) This I have found, by five or six years' steady experience, answers for any sort of hay, except salt hay and clover. The reason why I take the hay to be really better is, because I take it for granted that the more juice or natural moisture we can retain in it, and not corrupt and rot the stalk, the richer and more nutrimental it is. The too often turning and spreading of hay in the sun extracts too much of the richness thereof; and one day's thus lying will take away such a quantity of the most aqueous particles, as that the remainder is only sufficient to raise a proper fermentation thereof when in the cock; and the smallness of the body when it is in the cock keeps the fermentation from rising to such a height as to corrupt it; and after twenty-four hours the fermentation will gradually abate, and the pitching of it into the cart, and afterwards into the mow or stack, so checks it that it will not again arise to such a height as to be detrimental; the cattle will eat it freer, and less of it will support them."

As to haying tools, our advice is to have the best, and a sufficient number of them. Scythes, snaths, and forks are so cheap and excellent, that no farmer can complain if he persists in using poor ones. The hand-rakes with three bows we consider as decidedly preferable to those with only two; they are stiffer and more durable. The horse-rake is unquestionably the best labor-saving farm implement of recent invention. It is, too, a great economizer of time; it does up its work quickly and in season, before the dew falls. And here we would say, that it may also be used to gather the scatter-

ings ; we know of good farmers who use hand-rakes but little, or not at all, for this purpose. Some, indeed, do not rake any of the scatterings till after the hay is taken from the field, and then go over it with a horse-rake.

A sensible writer in the *Germantown Telegraph* says : "I never allow grass of any kind to *become hay while standing*. I commence to cut rather before the period of blossoming, in order that I may get through before the seed becomes fully ripe, or sufficiently ripe to shatter out. In mowing, I would not cut a spear until the dew had left the grass, and then lay down as much as possible before three o'clock ; raking at night (when the grass is thin and will allow of it) only what was cut before eleven o'clock, that cut in the *after part* of the day being allowed to remain in swath till the morrow, when it should be turned over carefully, but not spread, and be put into grass cock at night. In this condition it may remain till made.

In forming grass cocks, care should be had that they are not made *too large*. Eighty pounds of *cured* hay is sufficient for a cock, and if no more than this is put up, there never will be any danger of its heating in clear weather, and it will make very rapidly, and without any loss of color or flavor, and be much more palatable than that made in the sun by spreading in the field.

In making grass cocks, where the crop is heavy, the fork is a much more convenient instrument than the rake in performing the burden of the work, although the rake must follow to clear up the scatterings, and give shape to the cocks after being thrown together by the fork.

If the weather threatens to be dull or stormy, the hay should be put together as compactly as possible, and well capped ; but should it promise to be fair, with no prospect of rain, little care need be exercised, and cocks may be thrown together as usual with hay that is made in the ordinary way. Hay that has been properly cocked will, if the weather be favorable, make sufficiently to house in two or three days.

The very considerable losses experienced by the tedious and protracted process of spreading, raking, cocking, opening, shaking out, and putting up, are entirely obviated by this method, and there is no loss of time, or liability to be caught in sudden showers with a dozen tons of hay exposed on the field, to be wet, and perhaps spoiled. When hay in grass cock gets wet, the only course to pursue is to let it stand till it gets dry. A heavy shower or a long storm will scarcely wet down an inch ; and this, when the weather clears, will soon dry, and the inside be as bright and sweet to the smell as when put up.

Clover hay, which, from the peculiar character and structure of the leaves, is liable to be deprived of its most valuable parts by the frequent and severe handlings it receives in making, is so much improved by this process, that no one who once makes trial of it will ever think of renouncing it.

If the clover be cut when in full bloom, and allowed to remain in swath till just before night of the same day, and then be carefully turned with a fork, in order to bring the under and unwetted side to encounter the dew, and be allowed to remain in this state till the afternoon of the following day, and then formed into light grass cocks by pitching them together in *flakes*, the hay will be as green and sweet when carried to the barn as it was when cut, and this without the loss of any portion which is of value as a feed for stock. Even the rich color of the blossom will be retained, as well as the deep, beautiful green of the leaves, and the lighter verdure of the stalks.

Every one has noticed, doubtless, that green grass made in very hot weather shrivels up, loses its elasticity, and becomes pulverable, or liable to break at

the slightest touch. In this condition it is impossible to stir or handle it without severe loss; nor is it so palatable to cattle of any kind as the same grass cured in the manner I have recommended.

Purchasers of hay generally look much to the color of the article, and consider this as a sort of criterion for judging of its value. And in this they are correct. Light-colored, yellowish hay is rarely of much value, being either field-dried or washed by rains, in either of which conditions it is almost always refused by cattle when not forced to eat it by severe hunger."

Another correspondent in the same paper speaks in a very commendatory manner of "hay caps." It would seem to us that they would be more useful for stooks of grain than for hay, for reasons that may be gathered from the foregoing. He says, however, that there is no necessity of the cloth used for these caps being oiled or painted, or in any other way protected by coating. The tents of our soldiers are made of canvas simply, without any previous or subsequent preparation, and subserve the purposes of protection from rain most admirably. For hay caps, common cotton cloth, such as may be purchased for seven cents per yard, is good enough, and about four yards are sufficient for a "cap." They should be made square, and have a stick eighteen inches long at each corner to secure them down. Stooks of grain may be covered with these caps, and as thoroughly protected from the rain by them, even in long storms, as by a roof of shingles. As the cloth gets wet, the fibre of the material swells, and thus keeps out the rain, which flows off without passing through it. A farmer may save enough in a single season with these caps to cover the entire expense, and the caps be still as good as new.

HARVESTING WHEAT.

DR. LEE gives directions in a late journal on the important subject indicated by our title. According to him, many farmers cut wheat too late, (waiting until it is dead ripe,) and still more permit the grain to remain a long time in the field in small stacks after it is harvested. Both practices are wrong. Wheat intended for seed ought to be fully ripe before it is cut; but that which is to be ground into flour should not stand so long. The proper time to cut it is in the "doughy state," (out of the milk, but not hard or flinty.) Where one has many acres to harvest, it is difficult to avoid cutting some a little too early, or a great deal too late.

So soon as the straw is sufficiently cured, the crop should be housed, stored away in a barn, or threshed. Wheat straw is worth half the price of hay, if the grain be cut at the right time, and the straw properly saved from rain, dew, and sunshine. Where good hay is cheap, say four or five dollars a ton, the saving of wheat straw for forage need not command much care. But at the South, where first-rate hay is rarely worth less than seventy-five cents or one dollar per 100 lbs., the stems and leaves of all the cereal grasses should be preserved from damage by exposure to the elements, and used for wintering stock. Sheep are kept all winter on straw alone, by the large wheat growers in Western New-York; and so are mares, and colts, and cattle. Good barns, sheds, and stables are not so common as they ought to be, and no farmer who has the means to make these useful buildings should be without them. They will pay a high interest on their cost, greatly economize fodder, and operate to improve our live stock.

THE LIMITS OF AGRICULTURAL SCIENCE.

SOME of our exchanges are arguing very earnestly, and as powerfully, in favor of science in agriculture. We would add our mite, and with all our might, to this array of influence in a noble cause. But there are some questions of great interest for us to know, if practicable, which are set forth by some of these brethren, as points in relation to which we ought to be well informed, which seem to us beyond our reach, under any system of agricultural education.

One of these points is this: How much feed does it take to make a pound of pork or beef? No one can doubt that human physiology has received the most careful attention. The ablest men, and in successive generations, have devoted to it all their energies, and that, too, under the most favorable circumstances. But they have made no pretensions to the discovery of the amount of meats or vegetables that we must eat to produce a pound of fat, or a given increase in weight; and though we have been a pretty careful student of this subject, we are not aware of any peculiarly important facilities for testing such facts with the lower animals, rather than with our own species.

We have known some people who were very small eaters, and living upon a comparatively *thin* diet, who constantly accumulated fat. This, no doubt, is the observation of all men. The brother or sister, *the same flesh and blood*, always remained lean, even under a much more liberal diet.

We doubt not that there is as much variety in the vital powers of animals of all sorts, as in the human species in their forms, shapes, faces, and the like, and that no two litters from the same mother, and even no two pigs of the same litter, would exactly agree in the results of the most careful experiments.

There is something connected with animal life or vitality, beyond the question of its origin, and apparently much nearer the surface, which the wisest have utterly failed to fathom. We must therefore beg leave to doubt whether ignorance on this subject is evidence of blameworthy neglect. Nor should we hesitate to regard these co-laborers of ours as thorough and accomplished in their profession, because they are unable to decide such matters.

Allied to this is another question: How much *milk* will a given amount of certain kinds of feed produce? Go through all the stalls of the country, and you are but little wiser than now. You get nearly the two extremes, and these we have learned pretty well already. Every journal in the country has given statistics from which such facts may be gathered. The keeping of the animal is described, and the amount of her milk. The total results being known, any given portion may be computed with mathematical precision, so far as those data are concerned.

There is a peculiar relation between the capacity to fatten and to produce milk, which no mathematics can accurately determine for an entire species. The elements of the two substances, fat and milk, are so nearly alike, that a peculiar tendency to produce the one would naturally diminish the quantity or quality of the other. Until one of these is a fixed quantity, the other must vary also.

Changes in weather, as is well known, will have a material effect upon the rate of fattening. It is almost impossible for an animal to accumulate fat while suffering the effects of cold. One great design of fat is to furnish fuel for sustaining animal heat. These facts are familiar to all, and must care-

fully be taken into the account, ere we can tell how much pork a hogshhead of corn will make.

If to these considerations we add the degree of comfort, or rather of freedom from annoyance by other animals or by insects, the extent of territory over which they ramble, &c., &c., we might get a tolerably approximate ratio between food and fat. Otherwise, even an approximation, in the form of a general rule, seems to us utterly impracticable.

Notice, too, the experiments induced by the liberal premiums offered by J. W. Lincoln, Esq., of Massachusetts, to test the comparative value of cut and uncut hay, for fattening. The result is very "satisfactory," for it is arrived at under very careful observation. It shows, or tends to show, that cut hay is the better feed. But what were those results, with the different animals, on whom the experiment was tried?

The gain in pounds was as follows:

On cut hay, 38, 26, *loss* 5, 100, 30, 120, and 17 lbs.

On uncut hay, 23, 33, " 55, 25, 5, 8, and 87 "

The *average* gain is said to be 13.96 lbs. cut hay, or 23.41 lbs. uncut hay, to a pound gained in weight. Of these 8 animals, 5 gained most on cut hay, but 3 of them actually lost. And in the former cases, the gain varies from 15 to 2 $\frac{2}{3}$, while the loss varies nearly as much. Does it teach us how much it takes to make a pound of beef?

These experiments, and others carefully conducted, instruct us how, on the whole, it is wise to feed cattle. But even here, under experiments differing so widely, it would be quite as safe to try each animal with the several kinds of feed. Perhaps more numerous experiments would show these extreme differences to be exceptions; but on the point of which we now write, we cannot expect to find a prevailing rule.

PRINCIPLES OF BREEDING.

WE find a valuable article, illustrating the above title, in the *Boston Cultivator*, and extract much of it for our readers:

Many persons, who are violently opposed to all crossing, and are loud in their advocacy of the opposite mode of breeding, do not seem aware of the fact, that many of the so-called "pure breeds" were derived from various crosses. It is not long since some of these special sticklers for pure breeds were actively engaged in propagating and selling the Berkshire swine in this country, and talked much of their purity of blood. Yet none who know any thing of the origin of that variety will deny that it is a mixture of several breeds. Youatt informs us that the present breed is a cross of the old Berkshire with the Chinese, Siamese, and Neapolitan. In fact, it is not pretended by authors, that among the present valuable breeds of Britain, there is one that can be considered original and unmixed. Even the highly-esteemed Suffolk is stated by both Youatt and Martin, the most reliable authorities on the subject, to have been produced by a mixture of the old Suffolk, Berkshire, and Chinese.

It is not our intention to assert that all crosses of swine have been beneficial—we know there have been many improper crosses—but who will dare deny that great improvement has been produced from this course?

We come now to sheep. Here we have a most striking case in point, in the origin of the present Leicester, or Bakewell breed. Few breeds are more

distinct in their characters than this, or transmit their peculiarities with more marked effect, when crossed with other breeds. Indeed, it is well known that the Leicester has been much resorted to for the improvement of others, and has in part formed the source from which several other breeds have been formed—of which we may mention the improved Cotswold, or New Oxfordshire, and the improved Cheviot. The Leicester breed of sheep may in truth be said to have attained a world-wide celebrity, and if its originator had effected no other improvement, this would have secured to his name perpetual honors.

But how did Bakewell produce these sheep? It is unfortunate that we have no record of his proceedings from his own hand; but there are some authorities who throw light on the subject. Pitt, in his *Survey of Leicestershire*, has embodied much valuable information on this point. He says:

"Mr. Ferryman, who has conversed with many of Mr. Bakewell's contemporaries, states that he had formed in his own mind an ideal perfection, which he endeavored to realize; and that with this view, he, with unwearied perseverance, and at something more than a market price, selected from the flocks around him such ewes as possessed those points which were most likely to produce the animal he wished for." (Page 249.)

The same authority states that some of the sheep he alludes to were the descendants of some which, several years before, had been brought from a section of Yorkshire, and crossed with the common sheep of Leicestershire. Jobbers were also in the practice of going to the Wolds to purchase sheep, and Mr. Bakewell, it is said, "engaged these jobbers not to offer their sheep till he had seen them, and taken out such as he thought would serve his own purpose. From these droves, or from flocks so bred in his neighborhood, and probably from a distant cross with the large long-wooled Lincolnshire, he bred his first short-legged, square-framed sheep.

"Animated by his early success, he still went on breeding from his own, or crossing with any others that he judged most likely to bring his own nearest to his idea of perfection; by which means, and (in the opinion of one of the oldest breeders in the country) by slow degrees he produced a form against which he believed no possible objection could be raised." (Page 250.)

Dickson, in his late work,* says: "Mr. Bakewell was ever on the alert in picking up any sheep which he considered would improve his own stock. It is said that when visiting an eminent breeder in Lincolnshire, he cast his quick eye on a flock of sheep belonging to his friend, which possessed fine points and good symmetry, and whose mellow touch and handling pleased him. He must have been a splendid animal to have satisfied such a man; and he prevailed on this breeder to sell the animal, as he stood rather low on the legs. His friend was induced to part with him, as breeders in Lincolnshire prefer sheep which stand high on their legs, while Leicestershire breeders prefer those with rather short legs, provided the carcass be long and well-formed. Mr. Bakewell considered the tup a prize; and it was said this animal corrected many of the wrong points and defects of the Leicesters, particularly in the wool and the covering of the heads, which they so wanted. The wool of this sheep was of a closer texture than usual, and his head and ears well covered."

Robert Smith, an eminent sheep-breeder, in an essay on the "Breeding and Management of Sheep," for which he received a prize from the Royal Agricultural Society in 1847, observes: "The crossing of pure breeds has been a subject of great interest amongst every class of breeders. While all agree that the first cross may be attended with good results, there is a diversity of

* Breeding of Live Stock, by James Dickson. Edinburgh, 1851.

opinion upon future movements, or putting the crosses together. Having tried experiments, (and I am now pursuing them for confirmation,) in every way possible, I do not hesitate to express my opinion, that by proper and judicious crossing through several generations, a most valuable breed of sheep may be raised and established; in support of which I may mention the career of the celebrated Bakewell, *who raised a new variety from other long-wooled breeds*, which have subsequently improved all other long-wooled breeds."

We next refer to the origin of some breeds of horses. And first of the Arabian, whose history has been written with great care by the distinguished naturalist, Col. Chas. Hamilton Smith. He states, as the result of his extensive investigations, that it is "*a race of great intermixture.*" True, it has been cultivated for ages, till, in his language, it "is the most artificial, the first of high-bred horses, and the parent of the noblest breeds in the world."

The English race-horse, according to the best authorities—as Low, Youatt, and Smith—was derived from a mixture of the blood of the Turkish, Barbary Arabian, Persian, and Spanish horses, with more or less of the ancient British stock. The Suffolk, the Clydesdale, and even the most esteemed family of the Norman, are admitted to have had a mixed origin, though by skilful breeding they have attained great uniformity.

It is evident that Bakewell combined the system of crossing with that of breeding from one stock; for his animals were in the first place selected from different breeds; but after the cross had been carried to the desired point, and his standard had been attained, he confined his selection of breeding animals to his own stock. This was the course he pursued with horses, sheep, and swine. It was also the course pursued by Colling, with cattle. And yet, in full view of their signal success, when it has been suggested to breed together some animals of extraordinary value that have been produced in this country, we are gravely told (not, however, by experienced breeders) that such a course "would be only insuring uniformity of defects, and making them, in the end, utterly worthless!"

Prof. Simonds, in a lecture delivered before the Royal Agricultural Society, 1848, observes: "Crossing is founded on a principle just as secure as Bakewell's system of care in selection, added to the in-and-in system. Every improvement of breed requires the same means to retain it which produced it; the chief of these is *care in the selection of stock*, so as to avoid the tendency to hereditary diseases [or defects]."

MODE OF PRESERVING SHINGLES ON ROOFS.

[THERE is much for us to learn as to the best mode of covering our houses. The following is one of the modes practised to some extent, and has proved, we believe, quite satisfactory. We copy from the *Spindle City*:]

A gentleman in Groton gave us the other day the manner in which he prepared his shingles, before laying them on his house, some six years ago; and on examination, we found they had a perfectly sound and fresh appearance, as though they had been laid not more than a month.

He had a large boiler, which he filled with whitewash, mixing with it about one pound of potash to four gallons of liquid, also about the same amount of salt. This composition he boiled, and while it was boiling, he dipped the shingles in, taking a handful at a time, and holding them by the

tips. He had boards placed so that he could set his shingles on them on end, and let the liquid, as it ran off them, run back again into the boiler. The shingles he allowed to dry in this position, before laying them; and his belief was, that by thus curing or hardening them, they would last much longer. They could be colored red or yellow, easily, by mixing red or yellow ochre with the composition.

The expense for shingles on a roof is very considerable, as the most of those which we buy now, unless we go to a very high price in purchasing, last but for a few years; and therefore something that will harden and preserve them like the above, and which costs but little in the application, will be thankfully received by owners of buildings.

FROMINGS' PATENT FORGE-HAMMER.

WORKMEN in iron, it seems to us, have made more improvements in their machinery than almost any other class of manual laborers. We do not here refer to those almost magical inventions now in use in our cotton and woollen mills, our power-looms, carpet-looms, &c., for these are the ingenious combinations of ingenious machines. The loom for weaving carpets, contrived by Mr. E. B. Bigelow, of Clintonville, Mass., is a most wonderful adaptation of curious contrivances, which no English machinist has yet equalled. But look at the tools of the tinman. Within a few years, all his work was done

by the hammer and mallet, and required much time. Now, every thing is done by machinery, and a few seconds will furnish you with all the parts of his various manufactures exactly fitted to each other.

Our machine-shops are a curiosity to the unskilled. Their various turning and screw-cutting machines, drills, &c., &c., and last, but not least, their furious trip-hammers, never fail to astonish one at his first visit.

We present our readers with a description and diagrams of a new style of forge-hammer, the invention of Mr. Thomas H. Fromings, of Sheffield, England, patented in April last. The advantages of this hammer, as claimed by the inventor, are that it may be applied to all kinds of forging with much greater facility and economy than the power-driven hammers hitherto in use, and that it is suited

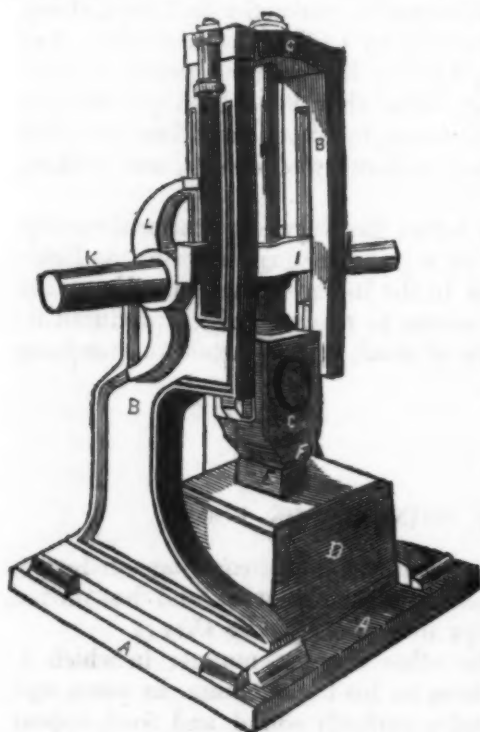


Fig. 1.

for forging many smaller articles, such as edge-tools, files, knives, &c., which are now entirely forged by manual power applied directly to the shaft of the hammer.

Fig. 1 is a perspective view, Fig. 2 a front elevation, and Fig. 3 a side

elevation of this hammer. A A is a basement-plate mounted upon large ashlar stones, under which oak beams are laid, the whole being fixed together by holding-down bolts; B B are standards, forming a general framework by being bolted at their lower ends to a cross-head or rail C; D is the anvil-block, which is fixed on a block of wood; E the anvil; and F the hammer, fixed to the hammer-head G. H is an upright guide-rod, to the lower end of which the hammer-head is securely keyed; the upper end of the guide-rod H works through a brass in the top rail C. I is a cross-head, which is securely

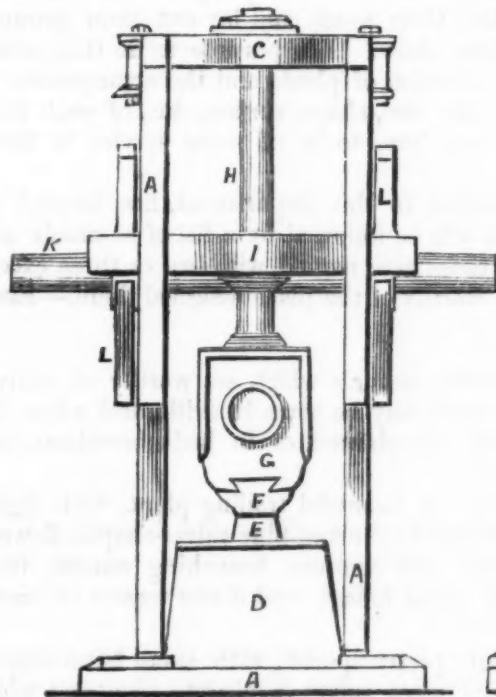


Fig. 2.

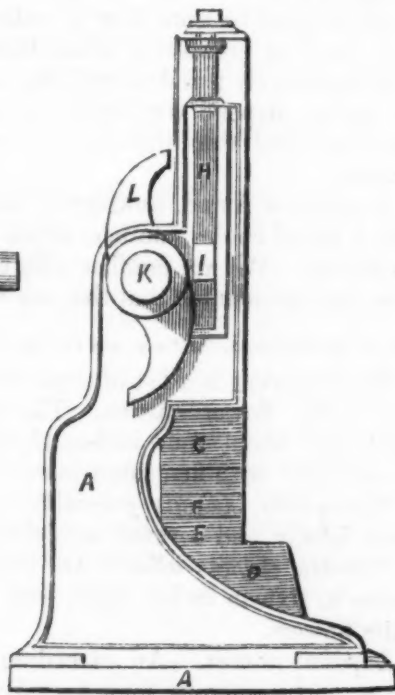


Fig. 3.

fixed to the guide-rod H, and works freely up and down in slots formed in the side-frames, through which it passes, and beyond which it projects a short distance on both sides. K is a driving-shaft, which has its bearings in brasses mounted in the framework. L L are cams affixed to the driving-shaft, which, when the shaft is made to revolve, come against the projecting ends of the cross-head I, and raise it, together with the hammer-head and the hammer. As soon as the cams pass the cross-head, the hammer drops. The cams are represented in the engravings with two rises or arms upon them, but it will be evident that they may have any number of rises, or be even reduced to a single rise, dependent upon the speed at which the hammer is to be worked and the amount of power at disposal for working it.

When the hammer is to be driven very fast, a helical spring should be attached to the cross-rail C and around the guide-rod H. When the hammer is raised, the spring is compressed between the cross-head I and the rail C; and on the cross-head being released from the cams, the spring assists in accelerating the descent of the hammer, and materially increases the force of the blow. The power employed to work this hammer is applied to the driving-shaft K, by means of any suitable mechanical contrivance, and may be derived from any prime mover, as steam, water, or even manual labor.

FLORICULTURE.

[WE have given but little attention to flowers, hitherto, in these pages, partly because other topics seemed for the time more important, and partly because we were in doubt what course to pursue in the expectation of meeting the wants of a majority of our readers. We suppose, however, that with a large proportion of them, a small plat of ground is all that their economical husbands or fathers are willing to allow them for such purposes, and that they would be glad to learn how to select their seeds and lay out their ground, with the best promise of a handsome show. We purpose to do this, somewhat extensively; and though the selection of plants and the arrangement of the garden depend very much on the size, shape, surface, &c., of each little parcel of land thus devoted, we may hope to be of some service in these matters.

A personal friend, thoroughly skilled in this department, has favored us with a list of choice annuals, which will be followed by a list of biennials and perennials. We are familiar with those here named, with two or three exceptions, and are assured that they are worthy of the place assigned them.—Eds.]

Editors of the Plough, the Loom, and the Anvil:

The following is a list of some of the annuals which are worthy of cultivation in the flower garden. The seed may be sown in drills, and when the plants are about four inches high, transplanted, or in beds broadcast, and covered over with fine sifted loam:

Nemophila insignis grandiflora.—A beautiful trailing plant, with light-green foliage, and covered with thousands of azure-blue salver-shaped flowers.

Clarkia elegans alba.—An erect and compact branching annual, from twelve to sixteen inches high, with small foliage and dense masses of snow-white flowers.

Lupinus namus.—An exceedingly pretty species, with small hand-shaped leaves, and numerous long, terminal, erect spikes of elegant blue and white pea-shaped flowers.

Reseda odorata (Mignonette).—A beautiful annual for borders, growing about ten to twelve inches high; leaves of a light green, flowers in long spikes, and of the most beautiful fragrance.

Iberis umbellata (Candy-tuft).—A beautiful annual, growing twelve inches high, and producing an abundance of snow-white heads.

Malope grandiflora.—A highly ornamental annual, two to three feet high, with mallow-like leaves, producing numerous rich crimson flowers.

Lathyrus odoratus (Sweet Pea).—There are seven varieties of this beautiful climbing annual, growing (in common soil) from six to ten feet high, and bearing an abundance of flowers which are very fragrant.

Delphinium consolida (Branching Larkspur).—A late-flowering annual, growing from two to three feet high, of erect branching habit, with numerous racemes of variously shaded blue blossoms, finely adapted for bedding with shrubbery.

Dianthus annuus (Chinese annual Pink).—A beautiful plant for bedding out, flowering in profusion nearly all the season.

Convolvulus minor.—A spreading plant, growing from nine to twelve inches high, and ornamented with a profusion of large, rich, purplish-blue flowers.

Eschscholtzia californica.—A highly ornamental annual, growing from

twelve to sixteen inches high, with a profusion of large and brilliant orange-yellow flowers, very showy.

Sweet Sultan.—An upright-growing annual, from eighteen inches to two feet high, producing numerous large white and yellow thistle-like flowers.

Aster.—An upright, growing about eighteen inches high, with an abundance of large, variously colored, rose-shaped flowers.

Tropæolum peregrinum (Canary Bird flower).—A beautiful climbing annual, producing a profusion of bright orange flowers; one of the most ornamental plants for the garden.

Portulaca splendens.—A low-growing annual, finely adapted for bedding, producing a dense mass of bright crimson, poppy-shaped flowers.

Large-flowered Zinnia.—An upright-growing annual, from two to two and a half feet high, producing large single flowers of various colors.

Coreopsis tinctoria.—An upright-growing annual, about two feet high, producing an abundance of showy orange-colored flowers.

Schizanthus.—An upright-growing plant, about two feet high, with an abundance of lilac or pink-colored flowers, of different shades; very showy.

Collinsia.—A beautiful, erect-growing annual, producing long spikes of variously colored flowers, and quite hardy.

Ageratum mexicanum.—A beautiful, upright-growing annual, about two feet high; fine to cut for bouquets.

ANNUAL CATTLE SALE OF LEWIS G. MORRIS, ESQ.

THE third annual sale of Mr. Morris occurred on his farm at Mount Fordham, Westchester county, on the 9th ult. At about half-past twelve o'clock the company, numbering not less than five hundred persons, partook of a very excellent collation prepared under direction of Mr. Morris, and served up in a style not often surpassed.

After the collation came the sale. An inclosure in circular form of about eighty feet in diameter was constructed of a strong board fence, around which the company was gathered. Two gates on opposite sides of the inclosure furnished easy means of ingress and egress for the animals. Within this ring all the animals, when sold or hired, were placed, except the swine. As soon as the animal was "knocked down" by the auctioneer, it was led out of the inclosure, and another immediately took its place.

The auctioneer's stand was on one side of the ring, and sufficiently elevated to give him a fair view of the bidders. The bidding was done by means of a second-glass, the sands of which were *fourteen seconds* in passing from one end of the glass to the other. The bidding was made in sums of \$2.50 and \$5.00 each, and when it became rather slow, the glass was inverted, and if no bid was made before the sand had passed into the lower end of the glass, the bidding was declared closed, and the animal led from the ring.

Below we give the breed, age, price brought, name of purchaser, &c., &c., of the several animals sold.

PURE BRED SHORT-HORNS.—Lot 1. Rose, calved May 9, 1846, sold to Mr. Foley for \$80. 2. Fan, calved 1843, Mr. Foley, \$100. These animals were both imported by Mr. Brown, of Baltimore, from the stock of Col. Cradock, of England. 3. Woodbine, calved 1848, to Mr. Foley, \$105. 4. Pride, calved 1835, to Mr. Stone, \$60. 5. Jane, calved 1836, to Mr. Tabor, \$65. 6. Woodbine, calved 1836, to Mr. Fuller, \$50. 7. Alice, two years old, to Mr. Shillingforth, \$80. 8. Chinchinella, three years old, to Mr. Stone, \$85.

9. Zephyr, one year old, to Mr. Thorpe, \$90. 10. Susy Walker, calf three months old, to Mr. Simpson, \$50. 11. Agnes, six months old, to Mr. Thorpe, \$120. 12. Miss Spencer, calved 1846, one-fourth Dutch, and a great milker, giving twenty quarts per day, to Mr. Johnson, \$130. 13. Miss Spencer No. 2, calf five months old, to Mr. Wilmerding, \$90.

SHORT-HORNED BULLS.—Lord Eryholme, calved 1851, was hired out for one year, after a spirited bidding, commencing at \$60, to Mr. Thorpe, for \$270. 2. Kossuth, a calf, six months old, out of the above, was sold to Mr. Colgrove for \$155. 3. Gladiator, same as above, three months old, to Mr. Hooper, of Pennsylvania, \$150. 4. Cato, calved 1850, to Mr. Stone, \$180. 5. Ajax, three months old, to Mr. Thornback, \$55. 6. Hercules, two months old, to Mr. Cooper, \$25. 7. Orion, one month old, to Mr. Read, \$30. 8. Medley, two months old, to Mr. Keim, \$50.

PURE BRED DEVONS.—This herd was rather limited, as Mr. Morris had started it only within the last two years. Their color was invariably red, with the tips of their tails white, and all had long horns. 1. Gazelle, a heifer two years old, sold to Mr. Waynewright for \$90. 2. Belle, a heifer two years old, sold to Mr. Wilmerding for \$55. 3. Nell, a heifer two years old, sold to Mr. Foley for \$35. 4. Fairy, a heifer two years old, sold to same for \$35.

AYRSHIRES.—This is a composition breed formed in the county of Ayr, Scotland, by a union of the Short-Horn and Alderney breeds many years ago, and they have been bred with each other for such a length of time as to form a breed in itself. As a dairy stock, they are considered well adapted, uniting a larger quantity of milk, for the size of the animal, than any other. 1. Rose, calved June, 1848, to Mr. Stone, \$125. 2. Effie Deans, calved 1849, to Mr. Maitland, \$80. 3. Miss Christie, to Mr. Haynes, \$65. 4. Highland Mary, two years old, to Mr. Munno, \$71. 5. Caledonia, two years old, to Mr. Maycock, \$85. 6. Jessie, two years old, to Mr. Shillingforth, \$65. 7. Bessie Bell, two years old, to Mr. Maitland, \$100. 8. Mary Grey, two years old, to Mr. Simpson, \$80. 9. Nannie, two years old, to Mr. Munno, \$80. 10. Jeanie Deans, two years old, to Mr. Wilmerding, \$70. 11. Bonnie Lassie, one year old, to Mr. Shillingforth, \$55. 12. Maggie, one year old, to Mr. Simpson, \$30. 13. Lucy, one year old, to Mr. Cliff, \$25. 14. Liliass, one year old, to Mr. Cliff, \$25. 15. Fan, one year old, to Mr. Foley, \$55. 16. Sally, one year old, to Mr. Wilmerding, \$25. 17. The Rose of Ayr, one month old, dam of Bessie Bell, to Mr. Harvey, \$12.50. 18. Robert Burns, two years old, to Mr. Russell, \$90. 19. Sir Walter Scott, calved Sept., 1851, to Mr. Evans, \$80.

SOUTHAMPTON SHEEP.—Three Bucks, one year old each, and all named Fordham, were hired out for \$37.50 for one year. One year old buck brought \$35, and was purchased by Mr. Clements, but the ewes and lambs did not bring more than from \$6 to \$15.

SUFFOLK SWINE.—This breed is known in England as the medium size. They are white in color, and mature early. Several pairs of young pigs, two or three weeks old, fetched from \$8 to \$12, but the sows scarcely brought more than \$25.

Mr. Morris will not have another sale until 1854. He leaves for Europe the present month, for the purpose of adding to his stock, preparatory to his next sale. Every friend of agriculture will wish him success, and hail his return with gladness. He is a gentleman of much public spirit, and his arduous efforts to improve the breed of cattle, sheep, and hogs, and the farming interests generally, should insure him the good wishes and gratitude of every farmer throughout the country.

RICE AND RICE CULTURE.

WE select the following as a concise and accurate account of this valuable article. It is from the pen of R. F. Alston, of South Carolina. It is found in the Patent-Office Report:

Our lands are improving under the grateful influence of the fallows and rotation practised by me, as that of a system, first in 1837-8, and they produce now rice of better quality than formerly. So much is this the fact, that there is a class of purchasers recognized in the Charleston market who will be content with nothing but the choicest samples, and for these they are willing to pay an extra price.

This system, extended as it is, and greatly improved, in the hands of my observant, skilful, and judicious neighbors of Waccamaw and Sandy Island, by manuring with rice straw, chaff, and even flour, has been one among the chief means of producing the beautiful "long-grain" rice, (cultivated now by the two most successful and experienced planters in this district, and by not more than two others, as far as I know,) in the highest state of maturity.

Rice straw has long been valued as an excellent manure, when listed in and rotted for upland corn and potatoes. It has latterly been used in the same way as a dressing for rice in the fallow swamp land on Sandy Island, and with favorable results.

Rice chaff, too, which formerly was discharged from the mill into the "race-way," in order to get rid of it, since its analysis by Professor Shepard, for our Agricultural Society, is now used to some extent in renovating old lands. It is distributed over the surface, some three inches deep, and ploughed in, stimulating the production of the soil, and improving the quality of the grain.

Rice flour, notoriously of value as food for hogs, cattle, and poultry, and selling readily, when corn is scarce, at from 12 to 20 cents per bushel, has, within a very few years past, contributed its share towards improving in both quality and quantity a particular crop in Waccamaw.

The crop of last year, (1850-51,) affording, as it does, a good portion of very prime rice, where the salt-water did not affect it, will prove to be some 10 per cent. short, as estimated by us. This diminution is believed to be owing, chiefly, to the high winds which passed over the tide lands about the middle of August last, when the greater half of the growing rice plants were still in bloom.

Rice is essentially a "swamp seed" here.

We do not cultivate any on the upland.

Every year, however, it is grown in small patches in the interior, and tended mostly with the plough.

The best kind of rice for this purpose is, I believe, the old-fashioned "white seed," which was the only variety cultivated in the State until late in the last century, when was introduced among tide-swamp planters the "gold seed rice," which is now universally approved. The "bearded rice," a variety of white rice, with a very long awn, was imported some years ago for this very purpose (upland planting;) but, I believe, it is now nowhere seen but to be eradicated.

The "long-grain" seed alluded to above, some account of which is given in the proceedings of the State Agricultural Society of South Carolina, is the choicest variety now cultivated in this region. Like the ordinary seed, it re-

quires particular care and attention throughout the process of culture, to have it produced of the prime quality. But, when thus produced, if it be carefully milled and skilfully prepared, the long-grain rice will command in the winter market from 50 cents to \$1 per 100 lbs. more than the very best qualities of the ordinary small grain.

For example, during the month of December just past, the market in Charleston for small grain has ranged from \$3 and \$3.25 for prime, to \$3.37½ and \$3.50 per 100 lbs. for choice. Whereas the market for long grain has been influenced by fancy. Prices have been obtained for this kind of \$4.25 per 100 lbs., \$4.50 also, and even \$5 for a small fancy lot.

IRISH POTATO SLIPS.

A WRITER in *The Soil of the South* gives the following advice in relation to the keeping and growing of this important crop:

Mix two bushels of charcoal with one bushel of air-slacked lime for every fifty bushels of potatoes, and sprinkle the mixture through the potatoes immediately after moving them from the field. In this way you may keep them perfectly sound until the spring.

Inasmuch as seed potatoes are with difficulty obtained at any price, I have been planting the Irish potato for the last three years by drawing the slips, and find that they produce in this way quite as well as the yam potato. One bushel of Irish potatoes planted in this way will produce more than two bushels planted from the seed. Bed them as you do the yam, draw the slip, open a wide furrow with the plough, and plant them in it on the horizontal plan, as you do grape cuttings, leaving from two to four inches of the top out of the ground.

Mr. Cobbett, in an essay on the Irish potato crop, written in 1816, predicts that it will eventually fail. To this opinion we dissent. The Irish potato is a native of America, where it grows wild, and was transplanted in Europe, where it became an indispensable article of food, and where it has been cultivated with great success under forced culture. Neither is the Irish potato a native of the Northern States. And yet we have been hewers of wood and drawers of water to the Yankees until we have forgotten when to dig our own potatoes or how to save them. Necessity now forces us to change our system of agriculture. The original stock of potatoes has become exhausted. We must renew it. Draw from your present crop slips or vines when from eight to ten inches long; plant as before described, in good loose free soil; gather your potato apples or balls, and you will get a fresh start. By drawing the slips, you get clear of the parent potato which is diseased. The potato apple will probably produce several kinds of potatoes, and a premium of \$100 by the Southern Central Agricultural Society would probably bring the energy of our farmers to bear on this subject, and bring to notice new and improved varieties. I am satisfied that our people do not appreciate the value and importance of seed raised on our own soil in our own climate. The Cincinnati Society has offered such a premium for the best seedling strawberry.

I live in a grape-growing, grain-raising and vegetable and fruit country, in sight of the Catoosa Springs, where my experiments may be seen by calling.

NATIONAL AGRICULTURAL CONVENTION.

THE National Agricultural Convention assembled in Washington at the Smithsonian Institution on the 24th of June.

There were present at the organization 151 delegates, viz.:—From New-Hampshire, 8; Vermont, 3; Massachusetts, 25; Rhode Island, 3; Connecticut, 4; New-York, 20; New-Jersey, 2; Pennsylvania, 5; Delaware, 6; Maryland, 23; Virginia, 10; North Carolina, 1; Louisiana, 2; Ohio, 12; Kentucky, 2; Tennessee, 3; Indiana, 1; Illinois, 2; Arkansas, 1; Michigan, 4; Texas, 1; Wisconsin, 2; District of Columbia, 11.

Judge Frederick Watts, of Pennsylvania, was appointed temporary chairman, and the Convention was permanently organized by the choice of the following officers:—

PRESIDENT—Marshall P. Wilder, of Massachusetts.

VICE-PRESIDENTS—Henry Wager, of New-York; Frederick Watts, of Penn.; Hunter, of Penn.; Charles B. Calvert, of Md.; Geo. W. Nesmith, of N. H.; Jno. A. Throckmorton, of Va.; H. K. Burgwyn, of N. C.; T. J. Rusk, of Texas; J. D. Doty, of Wisconsin.

SECRETARIES—William S. King, of R. I.; B. P. Johnson, New-York; J. D. B. De Bow, La.; J. A. Warder, Ohio.

On taking his seat, Mr. Wilder made a very happy address. After some discussion, too much after the style of our Congressmen, (and such many of them were,) a committee was appointed to report a Constitution for a National Agricultural Society.

A committee to report a constitution was chosen, consisting of Messrs. Holkham, of Maryland; Douglas, Illinois; J. A. King, New-York; Mallory, Kentucky; Dawson, Georgia; French, Massachusetts; Steele, New-Hampshire; Thurston, Rhode Island; Hubbard, Connecticut; Stevens, Vermont; Elwyn, Pennsylvania; Calvert, Maryland; Campbell, Ohio; Hancock, New-Jersey; Callan, District of Columbia; G. W. P. Custis, Virginia; Burgwyn, North Carolina; Taylor, Alabama; De Bow, Louisiana; Spencer, Indiana; Bell, Tennessee; Weston, Wisconsin; Pickhard, Maine; John McLane, California; Seaman, Michigan; Rusk, Texas.

The Convention was addressed by the Hon. WILLIAM B. CALHOUN, of Massachusetts, and Mr. JOHNSON, of New-York, on the subject of agricultural societies and agricultural literature.

Mr. ELWYN, of Pennsylvania, from the committee, reported a Constitution, which was read.

A discussion was had upon the question whether the meetings of the Society should be held exclusively in Washington, or should be "ambulatory" in its character. The Constitution was then adopted as follows:—

The undersigned, in order to improve the agriculture of the country, by attracting the attention, eliciting the views, and combining the efforts of that great class composing the agricultural community, and to secure the advantages of a better organization, and more extended usefulness among all State, county, and other agricultural societies, do hereby form ourselves into a society, and, for its government, adopt the following

CONSTITUTION.

Sec. 1.—The name of this association shall be "The United States Agricultural Society."

MEMBERS—DUES.

Sec. 2.—The Society shall consist of all such persons as shall signify to any officer of the Society a wish to become a member, and who shall pay two dollars to the Treasurer

of the Society, and a like sum annually hereafter; of delegates from the State agricultural societies in the States and Territories and District of Columbia, who may be appointed to attend the annual and other meetings of the Society, and who shall pay the like sum, and also of such honorary members as the Society may see fit to elect. Each member shall be entitled to receive a journal or publication of said Society, containing an account of its proceedings and such additional matter as shall be deemed worthy of publication, free from any expense except postage. Twenty-five dollars shall entitle one to the privileges of life membership, and exempt him from any annual taxation.

OFFICERS.

Sec. 3.—The officers of this Society shall be a President, a Vice-President from each State and Territory in the Union, and from the District of Columbia, a Treasurer, a Corresponding Secretary, a Recording Secretary, and a Board of Agriculture, to consist of three members from each State, Territory, and the District of Columbia, to be appointed by the Executive Committee of the societies of such States, Territories, &c., and where there be no such State societies, to be appointed by the Executive Committee of this Society. The President of the Society shall be, *ex officio*, a member and President of this Board and of the Executive Committee.

DUTIES OF OFFICERS.

The President shall have a general superintendence of all the affairs of the Society. In case of his death or inability to discharge the functions of this office, the Board of Agriculture shall select a Vice President to act in his stead, and clothed with the same power, who shall perform the same duties as the President until the next annual election.

Vice Presidents.—It shall be their duty to advance all the objects of the Association, in their several districts; to explain to agriculturists the character and objects of this association, and endeavor to obtain their coöperation and support; to watch the advance of practical agriculture, and to make known the results of the same, by report or otherwise, from year to year.

Board of Agriculture.—It shall be the duty of this Board to watch the interests of agriculture, as they are or may be affected by the legislation of the country, and to make such reports, memorials, and recommendations as may advance the cause of agriculture, and to promote and diffuse agricultural knowledge; to examine and, when necessary, report upon the practicability of establishing agricultural schools, colleges, and model farms; to set forth the advantages of agricultural and geological surveys, and to show the importance of the application of science to agriculture; to represent through their reports the relation of our agriculture to that of foreign countries, and to endeavor to obtain information from such countries; to point out the advantage of introducing any new staples, seeds, and plants; to obtain, so far as practicable, annual statistical returns of the condition of agriculture throughout the different States; all which information shall be published by said Society, and form a part of its transactions.

The Executive Committee shall transact the general business of the Society; it shall consist of five persons, who shall designate the time and place for exhibitions, regulate the expenditures, and take such supervisory charge of the business of the Society as may best promote its interests. This body shall elect its own chairman. Three members shall constitute a quorum.

Treasurer.—The Treasurer shall keep an account of all moneys, and shall pay bills only after they have been audited by the Corresponding and Recording Secretaries, and a member of the Executive Committee, and countersigned by the President of the Society or the Chairman of the Executive Committee.

Corresponding Secretary.—The duty of this officer shall be to correspond with persons interested in agriculture; at each stated meeting he shall read such portions of his correspondence as may be of general interest; and it shall be his duty to carry out and advocate the views of the Board of Agriculture, in obtaining, arranging, and publishing any information they may desire to have laid before the agricultural community.

The Recording Secretary shall keep a record of the minutes of the Society, and of its Executive Committee.

Sec. 4.—The annual meeting of the Society shall be held at the city of Washington, on the first Wednesday of February, in each year, when all the officers of the Society for the ensuing year shall be elected by ballot. The Executive Committee, however, shall be competent, with the approbation of the Society, to appoint occasional meet-

ings, to be held at other points. Fifteen members shall constitute a quorum for business.

Sec. 5.—This Constitution may be altered at any annual meeting by a vote of two thirds of the members in attendance, provided not less than fifty be present.

The meeting then adjourned to seven o'clock in the evening.

EVENING SESSION.

Mr. HOLCOMB, of Delaware, made a report in favor of the establishment, by the government of the United States, of a Department of Agriculture.

On motion of Hon. Mr. GENTRY, of Tennessee, the States were called in order, and the delegates came forward, signed their names, and paid the initiation fee.

The following officers were then elected:—

PRESIDENT—Marshall P. Wilder, of Mass.

VICE-PRESIDENTS—Ezekiel Howe, Maine; George W. Nesmith, New-Hampshire; Henry Stevens, Barnet, Vt.; B. V. French, Mass.; Jonah Chapin, R. I.; S. D. Hubbard, Conn.; Henry Wager, N. Y.; Thomas Hancock, N. J.; Frederick Watts, Penn.; Peter F. Causey, Del.; W. D. Bowie, Md.; George W. P. Custis, Va.; H. K. Burgwyn, N. C.; Thomas Wither-
spoon, S. C.; Thomas Stocks, Ga.; R. Jones, Ala.; Alex. H. Begnes, Miss.; A. B. Roman, La.; F. Kinsman, Ohio; R. Mallory, Ky.; Dr. John Shelly, Tenn.; John L. Robinson, Indiana; S. A. Douglas, Ill.; David R. Atchinson, Missouri; T. B. Hurnoy, Ark.; James L. Congar, Mich.; Dr. Simmons Baker, Florida; T. A. Rusk, Texas; W. F. Coolbaugh, Iowa; James D. Doty, Wis.; Lilburn W. Boggs, Cal.; J. F. Callan, District of Columbia; S. M. Baird, New-Mexico; Alexander Ramsay, Minnesota; Joseph Lane, Oregon; Jos. L. Hayes, Utah.

EXECUTIVE COMMITTEE—C. B. Calvert, Md.; J. A. King, N. Y.; Dr. A. L. Elwyn, Pa.; W. B. Newton, Va.; J. D. Weston, Wis.

CORRESPONDING SECRETARY—Daniel Lee.

RECORDING SECRETARY—Robert C. Walker.

TREASURER—William Selden.

Mr. McHENRY, of Maryland, made a speech in opposition to Mr. Holcomb's report, and to the principle of intermeddling, by government, with agriculture.

Hon. Mr. GENTRY, of Tennessee, offered the following substitute for Mr. Holcomb's report:—

Resolved, That public prosperity and happiness would be promoted by the "increase and diffusion of knowledge among men" upon the subject of agriculture; and therefore the law providing and organizing the Smithsonian Institution ought to be so amended as to make an increase and diffusion of agricultural knowledge one of the principal objects to be accomplished by that institution.

Resolved, That essays, lectures, and treatises on the subject of agricultural improvement ought to be published and circulated free of postage, and that the cost of such publication ought to be paid from the interest accruing from the Smithsonian fund.

Resolved, That a committee of ——— be appointed by the President of this Convention to prepare a memorial to be presented to Congress at its next session, in conformity with the above resolutions.

Judge DOUGLAS made a lucid and powerful speech in support of the resolutions.

Prof. HENRY, of the Smithsonian Institution, replied with much spirit.

Judge DOUGLAS rejoined; and the discussion was continued by Senator

Rusk, of Texas, until a quarter before 11 o'clock, when the Society adjourned to 10 o'clock on Friday morning.

On Friday the session was continued, and sundry discussions were had, but as they led to no specific result the details are omitted. At half-past twelve the Convention adjourned, *sine die*.

NEW BOOKS.

A Pilgrimage to Egypt; embracing a Diary of Explorations on the Nile, with observations illustrative of the Manners, Customs, and Institutions of the People, and of the present condition of the Antiquities and Ruins. With numerous Engravings. By J. V. C. SMITH, Editor of the "Boston Medical and Surgical Journal." 12mo, pp. 383. Boston: Gould & Lincoln, 59 Washington street. 1852.

Every thing relating to the subject of the above volume is of intense interest to the reader of the present age. The land of the Pyramids, the Pharaohs—once so mighty and renowned, now so feeble and benighted; where Karnac reared its magnificently adorned and beautifully sculptured marble monuments, even now, in ruins, the astonishment of the present time; where ancient Memphis, the pride and glory even of that wonderful and gorgeous epoch, presented her unrivalled magnificence to the admiring gaze of the countless multitudes that thronged her stately corridors and stupendous temples; and where the vast catacombs of the mummied dead extend over the now desert plains; in these we read lessons of most thrilling import, that cannot fail to impress deeply the contemplative mind, and fill the soul with emotions almost too strong for utterance.

These reflections involuntarily arise as we peruse the interesting volume before us—interesting in the detail of incidental and agreeable adventures of the author, who writes with vigor and effect, and whose clearness of description and distinctness of detail gives a vivid reality to all his descriptive efforts. We read Doctor Smith's letters from the East, which first appeared in the "Boston Medical and Surgical Journal," with deep interest; and now appearing in connected form, and in the publisher's beautiful style, we feel a double interest in perusing the elegantly embellished volume before us. In this work the author has written nothing merely for effect; his aim having been to give a faithful and reliable account of the country, customs, manners, and extraordinary antiquities of the country through which he travelled; and he has succeeded in giving to the public a work that *all should*, and we doubt not a large number *will*, read with instruction and pleasure.

The Consumptive's Guide to Health; or, the Invalid's Five Questions, and the Doctor's Five Answers: A comprehensive Practical Treatise on Pulmonary Consumption, its preventive and curative treatment, &c., &c., addressed in popular language to non-medical readers, and incidentally to physicians and students. By HAMILTON POTTER, M.D. Second edition. J. S. Redfield, Clinton Hall. 1852.

This little book, of 176 pages, treats of sundry diseases, such as those of the tonsils, uvula, larynx, &c., which the author says are "frequent precursors of consumption." The questions, What is pulmonary consumption—how can it be prevented—how ascertained—how cured? are asked, and answered, at some length. Under the second inquiry, he prescribes cold bathing, air and exercise, suitable care as to posture, diet, clothing, regularity of sleep, sleeping apartments, &c., &c. This, no doubt, is good counsel, and would, if duly observed, save the lives of thousands. He also disapproves of tea, coffee, and tobacco, feather-beds (for invalids), dosing with nostrums, &c.; all of which, save the tea and coffee, we suppose is beyond controversy. But we are not doctors, and are therefore inadequate critics in relation to much of the work.

We are sorry to see, however, in the preface to the first edition, that the author "has hurriedly prepared this little work, during detached moments, snatched from his professional engagements;" for such "hurry" naturally indicates undue conceit of his own ability, or unwarrantable disregard for the lives of those who trust to his prescriptions. Human life is a thing not to be treated "in a hurry," when deliberation is possible. We should have a much higher regard for the book, and certainly none the less for the

writer, had he said, This little work has been published only after mature consideration and careful deliberation. The author "cordially invites just and candid criticism," and we avail ourselves of this permission on the only point on which we are conscious of a disposition or competency to censure or find fault.

New-York and the White Mountains: with a complete Map, and numerous Wood-cut Views of the principal Objects of Interest on the Line. By WILLIAM GUILD. Boston: Published by Bradbury & Guild, 120 Washington street. New-York: W. C. Locke & Co., 135 Nassau street. 1852.

A trip to the White Mountains has been long considered one possessing greater attractions, and presenting more of the bold, picturesque, and beautiful of Nature, than can be realized from any similar excursion this side of the Alleghanies. This route, since the reduction of its distance by railroad—having been brought within a single day's ride of New-York, with every convenience and facility for enjoyment on the way—has become one of the most fashionable and pleasant in the country. To add to the pleasure otherwise afforded, the above little work has just been issued, containing an excellent map of the entire distance, and wood-cut illustrations of the principal objects of interest on the line, together with about eighty pages of descriptive matter. The work may be obtained of W. C. Locke, the New-York publisher, 135 Nassau street, at the trifling cost of twenty-five cents.

The Paper-Hanger's Companion: a Treatise on Paper-Hanging, in which the Practical Operations of the Trade are systematically laid down; with Copious Directions preparatory to Papering; Preventions against the effect of Damp on Walls; the various Cements and Pastes adapted to the several purposes of the Trade; Observations and Directions for Panelling and Ornamenting of Rooms, &c. By JAMES ARROWSMITH, author of "An Analysis of Drapery, etc." 16mo, pp. 108. Philadelphia: Henry Carey Baird. 1852.

Our readers will at once perceive that the above little volume is one of the valuable practical series of works on the various Arts and Trades, designed as Hand-books for practical men, and calculated to assist every one in keeping pace with the rapid progress of the times and the improvements of the age. The publisher has already issued "The American Miller and Millwright's Assistant," "The Turner's Companion," "The Painter, Gilder and Varnisher's Companion," "The Dyer and Color-Maker's Companion," "The Builder's Companion," "A Treatise on a Box of Instruments," and "The Paper Hanger's Companion" above mentioned. A more valuable series of cheap practical works cannot possibly be found in the country. Every artisan may derive something useful and instructive in his own department from these volumes.

Stories of the Lord's Prayer, and other Tales. By the Author of "Edward and Miriam." 18mo, pp. 192. New-York: Robert Carter & Brothers, No. 285 Broadway. 1852.

This is one of those little volumes that beget great results. To "train up a child in the way he should go," is the first duty of parents, and such works as the above are their very best earthly helps, as early incentives to duty. The various petitions of the Lord's Prayer are illustrated somewhat in the manner of Mrs. Sherwood's Tales on the Church Catechism, and calculated to fix the attention of children to the extensive purport of each. It is an excellent little volume, and should be placed in the hands of every child in the land; and as a valuable work for the Sabbath-school library, it is probably not surpassed.

Descriptive Catalogue of Agricultural and Horticultural Implements, and of Machinery, Field and Garden Seeds, Fruit and Ornamental Trees, Domestic Animals, Fertilizers, &c., &c. By RALPH & Co., Union Agricultural Warehouse, 23 Fulton street, (near Fulton Market,) New-York.

This efficient firm has recently published a pamphlet of ninety-six pages with the above title. The list is very large, including every variety of things needful for the farmer. Representations are given of all tools, implements, &c., and directions how to

plant or sow the seeds; and, in fact, we can discover no deficiency. We have no doubt that a visit to the warehouse would satisfy all that nothing was deficient there.

Plantation and Farm Instruction, Regulation, Record, Inventory, and Account Book: for the use of the Manager on the Estate of ———, and for the better Ordering and Management of Plantation and Farm Business, in every particular. By a Southern Planter. 4to, pp. 126. J. W. Randolph, Richmond, Va.

We have received a copy of this work, which is designed as a record of the daily service performed on the plantation or farm, with every item of expense for labor, cattle, tools, purchases of clothing, provisions, &c., &c., and of all sales, with annual and quarterly inventories. The form is concise and methodical, while it embraces every thing appropriate to such records. It is well executed, on good paper, and must prove very serviceable to those for whom it is intended.

OUR CORRESPONDENCE.

CORN CULTURE—MR. DURAND'S MODE.—*To the Editor of the Plough, Loom, and Anvil:*—The May number of the *Plough, Loom, and Anvil* is at hand, stored with its usual amount of interesting reading matter to the planter. In the present number I find a very interesting article on the 'Culture of Indian Corn,' by L. Durand. I read his article with much interest, as it treats upon one of the most important crops that is cultivated by the Southern planter, from the fact that it is almost the whole reliance of the cotton planter for his bread, and feed for horses and mules. I would be glad to learn of Mr. Durand his mode of curing corn after it is cut. I understand from his article, that he cuts his corn in *hard roasting ear*, without, or before pulling his fodder. Does he stack his corn immediately after cutting, or does he permit it to lie a few days before stacking? In short, I wish to know his whole plan of saving corn after it is cut. His answer to the above will be thankfully received by yours, &c., WM. M. BAGBY.—*Hickory-Ridge, Marshall County, Miss., June 12th, 1852.*

Will Mr. Durand forward an early reply to the above?—Eds.

AGRICULTURE IN VIRGINIA—Another correspondent from Dearborn county, Virginia, under date of June 1st, writes as follows:

"We have now organized an Agricultural Society in our county, and, as the people take more interest, they will investigate the subject more, and wish to read more; hence they will seek the best authors, and I know of none that will suit better than the specimen you sent me."

[The names of three subscribers accompanied this, with the cash.]

PROGRESS OF MECHANICS.—I received from you, a short time since, a circular, soliciting my services as a contributor to your excellent Journal. Having a few moments' leisure, I will give a few general thoughts on the important subject which the name of your journal suggests, that of the *Plough, Loom, and Anvil*. As we look forth at the present time on the improvements of the age, we are often astonished at its rapid progress in the sciences and the arts, and we are led to exclaim, This is an age of wonders! Let us look back for a few years only, and contrast the past with the present. It was but a few years since that every thing had to be done by hand. The mechanic had to forge all his varied work with sledge and hammer. The manufacturer had to fabricate his cloth by the hand-loom and spinning-wheel. The farmer in like manner planted his seed, raked his hay, and reaped his grain by hand. But now, by the aid of machinery, the mechanic can forge the most ponderous shafts and the largest anchors with more ease and at a far less expense than formerly. The manufacturer, by the aid of this powerful agent, lays aside the spinning-wheel for the spinning-jenny, the hand-loom for the power-loom; and thus, instead of coarse homespun cloth, we can have the finest fabric, and at a much less price. The farmer, by the aid of the horse-rake, the cradle, and seed-planter, can accomplish much more labor, with less help, than in former times. I will give you, by way of illustration, an account of a visit I made to one of the largest axe manufacturers in this country. It was in Collinsville, Conn., where some three hundred workmen were employed, turning out daily 1,000 axes. I arrived

there in the afternoon, and found a village counting some 300 inhabitants, and all deriving their support, directly or indirectly, from the manufacture of axes. Entering the forging department, I was almost stunned by those ponderous trip-hammers, yet all was moving on harmoniously and systematically. Passing along, I came to the grinding department. They shave them off by machinery, and afterwards grind and polish them. Again, I stood in Lowell, and visited one of the largest mills there. It was the Merrimac Company's. I was informed by the Superintendent that this Company employed two thousand two hundred operatives in their various departments; and as I passed from building to building, and from room to room, I could but contrast the present with the past. During the past season I have visited the western portion of our own State, and have been much pleased with the improvements in farming in the counties of Worcester, Middlesex, and Hampden.—Yours respectfully, JAMES ROBINSON. — *New-Bedford, (Mass.) June 2, 1852.*

THE CULTURE OF INDIAN CORN.—[We have received a reply from our correspondent, Mr. Abednego Robinson, of Portsmouth, N. H., in answer to that of Mr. L. Durand, of Derby, Vt., who objected to his statements in a late number of our journal. We give below all that claims to be new, in the form of statement or in the foundation on which his belief rests:]

Editors of the Plough, the Loom, and the Anvil:—In perusing your May number, I notice an essay on the culture of Indian corn, by L. Durand, in which he frequently alludes to an essay of mine in your number for March. He seems to doubt the truth of my statements, without expressing any desire for information on the subject. He has no faith, apparently, in anything but "common practice;" and he recommends to me to look back into Judge Buel's papers, to find evidence that corn will not shrink if cut up when the kernel is just full and glazed. Gather a few ears and expose them to the sun and air, and test the question. Corn and grain are alike in this respect. One of my tenants would cut up his rye when full and large, until I persuaded him to desist, although, when it was threshed, we judged it had shrunk one half. L. D. suggests that I convey the idea that cutting up and shocking is the *old* method. I made no such assertion. I admit that the same effect is produced by cutting the corn up, and leaving the stalks on; the stalk robs the ear.

L. D. makes another mistake. He says: "Then you have the land entirely clear for spring work, which is not the case when

corn is topped, as the bottoms are in the way and much fodder is lost."

I have farmed it in New-York and in Pennsylvania, and farmers there always found a way to save their corn fodder in much better condition than letting it stand in the field until the corn was so glazed as not to shrink.

L. D. refers to the experiments of Judge Buel, as indicating that corn increases both in weight and bulk, by cutting it up and shocking. But it seems a very singular mode of growing fruit, to cut it off from the fountain from which it obtains its nourishment. Must there not be some mistake in those experiments? Is there any difficulty in the perfect maturing of native crops, which are without cultivation, and in which the stalk always remains uncut?

As a general rule, I have no faith "in half-hoeing," or in ploughing sward ground only three inches deep for corn. And here we agree. But, on burnt ground, a good crop can be raised without any hoeing. L. D. seems not to understand my meaning, in the article which he criticises, and I commend to him another examination of it, before he undertakes to refute it.

OURSELVES—INFLUENCE OF FOREIGNERS.—We have received a letter, bearing date May 25, 1852, from a gentleman in Alabama, from which, though not intended for publication, we venture upon giving our readers the following extract. The writer says:

"I state that I have taken *The Plough, the Loom, and the Anvil*, and the excellent work of its predecessor, from the beginning, and I know with great advantage in every respect. The splendid, and still better, profound investigations of Mr. Carey must be highly estimated by every inquiring mind that really wants to know, *not* what party has the ascendancy, but what is the truth. The subject he discusses with so much ability and candor is all-important to our country; for I believe, if there is a truth on this side of *Holy Writ*, it is, that we have had '*vastly too much to do with foreign nations*;' and if there remained any doubts of the mad excess to which our thirst for the productions, the fopperies, the extravagances, and, I regret to say, the profligacies of foreign nations is madly carried, an honest exposé of our commercial relations and intercourse would settle the question.

"I have made exertions among our agriculturists to get this work circulated for public good, and shall continue them."

LAND GOOD, BUT NOT INEXHAUSTIBLE—CROPS, WEATHER, &c.—Another correspondent, from Fort Snelling, Minnesota, under

date of June 1, 1852, says, referring to our journal:

"I consider it well worth the money. The land in this country is so productive at present, that practical farming is but little studied; therefore agricultural papers are not appreciated as they ought to be. But time undermines the strongest of towers, and our neglected soils will wear out in time.

"We have had a cold, backward, and wet spring, and our river-bottoms have been all overflowed; the water is now falling, and we can just begin to see the banks of the rivers Minnesota and Mississippi.

"Warm weather has at last set in; and it is warmer than I have ever known it, (after a residence of thirty-one years in this country;) that is to say, for so long a time at once. Our thermometers for the last ten days have ranged from 85° to 90° in the shade.

"Our wild fruits—strawberries, plums, &c.—are now in full blossom.

"We have just hoed our early peas, corn,

potatoes, beans, &c. Some have had lettuce to eat from gardens, and some have had radishes from hot-beds.

"Probably I shall not write again till fall, when our crops come off; then I will give you the mode and productions of farming by some of our farmers this year.

"Some of our winter wheat has been killed, and some say they will have a fair crop from present appearances. Those that sowed in the hazle and grubs of different kinds, say their winter wheat is good. There is a large quantity of spring wheat sown this spring, (that is, for a new country,) of which I hope to give you some account at a future time.

"Some of our farmers are done planting, some half done, and some just begun. Some of the grain begins to look green in the fields. We believe that we shall have good crops this year.

"Temperature of water in a well thirty-two feet deep, 46°, or 14° above freezing point. Our lowest springs are all overflowed at present."

EDITORS' JOTTINGS.

TRIP TO THE WHITE MOUNTAINS.—It is not a little surprising that the American traveller, in pursuit of objects either grand, beautiful, or sublime, should so frequently turn his back upon the scenery of our own country, and seek the object of his pursuit in a foreign land. There is no more beautiful scenery in the wide world than that which can be seen by taking a trip up the Hudson River to Albany, or down the New-York Bay to Amboy. Nor can the Old World furnish us with views of the grand and sublime that can compare with our own thundering Niagara, or the bold and rugged cliffs of the White Mountains of New-Hampshire. No, the seeker of pleasure need not spend weeks and months away from home and friends in pursuit of objects grand and beautiful in nature; for a few hours' ride from our city brings him in contact with scenery unparalleled in this or any other country. But

"Distance lends enchantment to the view."

At least, so a poet has said; and although all truth is not poetry, nor poetry always truth, yet it must be admitted that there is much of both in the sentiment just quoted.

Dear reader, whether you reside North, South, East, or West from our great metropolis, if you purpose, during the summer, to

visit some place of fashionable resort where the mind may be led to look "through nature up to nature's God," permit us to say that you cannot do better than make a trip to the White Mountains. It is a place which every lover of nature should visit once. The emotions which are inspired by a view from Mount Washington can only be imagined by those who have experienced them.

Within a short time a direct route from New-York to this wonder of admiring thousands has been opened, called the "Great Northern Railroad Route from New-York to the White Mountains, *via* New-York and New-Haven R. R., in connection with the Railroads through the valley of the Connecticut River, and the main Railways in Vermont." The Railway Companies forming this line have arranged to run their main trains in connection, thus securing to the travelling public a thorough and unbroken transit from New-York to St. Johnsbury, Ogdensburg, and Montreal. They have also taken such measures as will afford the passenger all the safety, comfort, and speed that can be obtained on any main line of railway in the United States. Visitors to the White Mountains and Willoughby Lake may leave New-York by the 8 o'clock A. M. express train, and arrive at Wells River or St. Johnsbury the same evening, and go

from thence by stage to the Lake or Mountains, the next morning. Or they can take the 3½ o'clock P.M. express train, and stay over night at Springfield or Northampton, and go through the next day. The opening of the Vermont Valley Railroad from Battleboro to Bellows Falls completes the line, and forms a continuous and unbroken railway from New-York to Ogdensburg, Montreal, and St. Johnsbury, and opens a new and direct route to the foot of the Mountains, and in fact to all parts of Vermont and Canada.

This is another of the triumphs of *steam*, so characteristic of the age in which we live; an agency which is annihilating distance, and bringing the grandest objects in nature, as well as the distant and choice productions of the earth, at our very doors.

Many of our Southern readers, particularly in their annual northern tours, will want to visit the White Mountains; especially when they learn, as they will have done by the perusal of this article, how easily and speedily the visit may be made. You will procure your tickets at the office of the New-York and New-Haven Railroad, No. 35 Canal street, near Broadway, of A. R. GILLMORE, Esq., the agent of the route, a short interview with whom is sure to inspire a wish for a more familiar acquaintance. Mr. G. is a gentleman in the broadest sense of the word, in whose company the traveller feels at home. His long and familiar acquaintance with the duties of his station has rendered him a great favorite with the travelling public, whose pleasure and interests he seeks constantly to promote. Mr. Gillmore will provide you with tickets; see that your baggage is labelled, and checks given therefor; and when you are seated in the car, and Mr. G. says every thing is "all right," you may rest assured that your situation is as safe and as comfortable as it can be made in any conveyance in the wide world.

Reader, take a trip to the White Mountains in the manner here indicated, and, our word for it, you will return to your home a healthier, a wiser, and a better man than when you left it!

LARGE STRAWBERRIES.—We have referred to mammoth strawberries in our account of the recent Exhibition of Flowers and Fruits. We find in our exchanges an article from which we cut the following.

In the *Soil of the South*, and in the *Western Horticultural Review*, (and may they both live a thousand years,) some differences of opinion have been expressed as to the most successful mode of cultivating this fruit. But hear a correspondent of the former relating to the size of his berries:

"And if your correspondent will offer a

premium of a hundred dollars, for a bushel of strawberries picked at one picking, the least one of which shall measure four inches in circumference, we will pick that bushel, and convince the Ohio cultivators that vines may be dwarfed without dwarfing the fruit."

And then as to the time of bearing:

"We repeat what we have before said, and is susceptible of daily, weekly, and monthly proof, that we have picked ripe fruit from our vines ten months in the year, and can always do it six. Our fruit commenced ripening in March, and the same vines are now again in fruit and bloom."

The writer in the *Western Horticultural Review* says:

"The largest I have ever seen at our horticultural room was a basket presented by Mr. Jackson, raised on the kind of soil named (rich, stiff soil, with a stiff clay beneath.) The fruit measured five to five and three eighths inches. This was the Hovey's Seedling, the same variety cultivated in the South."

ANNUAL SHOWS.—At Lawrence, Mass., Wednesday and Thursday, Sept. 29th and 30th.

We are glad to see the following items among the premiums of this Society:

"For the best original essay on any subject connected with agriculture, in a form worthy of publication, \$10.

"For the best actual statement of farm accounts, drawn from the experience of the claimant, in a form worthy of publication, \$10."

Wisconsin State Agricultural Fair is on the 6th, 7th, and 8th of October, at Milwaukee.

Maryland State Agricultural Society, 26th, 27th, 28th, and 29th of October, at Baltimore.

ANNUAL FAIR OF THE WINDHAM CO., VT., AGRICULTURAL SOCIETY.—This Agricultural Fair will be held at Fayetteville, on Wednesday and Thursday, 15th and 16th September next. The farmers of this county are among the foremost in New-England. Their cattle and sheep and horses are seldom surpassed. It will no doubt be a good show. We hope to be able to give an account of it.

In their regulations, we perceive that they pay for the travel of all premium animals which are driven over ten miles, except horses, at the rate of five cents a mile. No owner of premium animals, however, is entitled to more than one allowance of travel.

CALIFORNIA POTATOES.—We were shown, the other day, by Mr. Teschemacher, of

Boston, a wonderful specimen of this root. We never saw any thing like it. Mr. T. was intending to cultivate the tuber and ascertain the amount that can be obtained from it. With his unequalled skill in this department, we are sure of at least a very satisfactory result. No man better knows how to accomplish the object than he.

BLAKE'S FIRE-PROOF PAINT.—In a late notice of this paint, which is patented by Mr. Blake, we omitted to give the analysis of the counterfeits. Mr. Blake's paint has gained such universal credit throughout the country, that many have been getting up and endeavoring to push into market (entirely upon the popularity of the genuine) all kinds of *counterfeits*, and in many instances they have succeeded in making persons believe it like Blake's, as the powder nearly resembles his, but upon trial must prove itself entirely worthless. An examination of its true analysis will show at a glance that it cannot be otherwise, containing nearly three fourths sand, or silica, and only a small portion of alumina, which is very necessary to give the requisite toughness to the paint, and but very little oxide of iron, the cohesive attraction of which binds the different component parts, after the action of the atmosphere has destroyed the oil.

Analysis of the so-called Fire-proof Paint at Lansingburg, N. Y., by Dr Salisbury.

Sand, or Silica,	72.84
Alumina,	5.02
Peroxide of Iron,	6.40
Oxide of Manganese,	14.40

Analysis of the so-called Fire-proof Paint at Oneida Castle, N. Y.

Sand, or Silica,	73.06
Peroxide of Iron,	9.08
Alumina,	11.02

Analysis of Blake's, by Dr. Chilton.

Sand, or Silica,	48.15
Alumina,	21.00
Oxide of Iron,	18.30

The above comparison shows that the *spurious* is nothing more than common sand and stone ground up, and the proportion of the alumina and oxide of iron being so small, it can have no effect in binding and holding the coating on after the action of the atmosphere has destroyed the oil, and of course, will turn back to dry sand, and run or wash off; whereas, Blake's has sufficient silica to give it the necessary hardness, and a large portion of alumina and oxide of iron, which harmonize and combine in their natural state, forming a hard, tough covering, which has now been tested more than seven years, and where first applied is

like a stone; whereas, the *counterfeits* have not yet been tested over a year.

The public may detect these counterfeits from the fact that in the genuine, the words "*Blake's Patent Fire-proof*" are put on the barrels in a circular form, and the word "*Paint*" straight; but in the forged brand, "*Blake's Patent*" is put on straight, and "*Fire-proof Metallic Paint*" in a circular form. We therefore would caution those who wish to get the *genuine article* to be very particular in examining the brand, or go directly to Mr. Blake's, at 84 Pearl street, where they not only can depend upon getting the genuine, but have no fear of infringing upon any one's rights.

WHEAT CROP.—The census returns present the following account of this crop in six States, viz.:

Pennsylvania,	15,482,291 bushels.
Ohio,	14,967,056 "
Virginia,	14,516,906 "
New-York,	13,073,000 "
Michigan,	4,918,000 "
Maryland,	4,494,680 "

Making 67,451,833 bushels. In 1840 the same States were returned for 57,683,765 bushels.

The corn crop of the United States, for 1850, is returned at over 500,000,000 bushels. In 1840, it was 377,531,875 bushels.

RAILROADS IN THE UNITED STATES.—

In De Bow's Review (a very elaborate work) we find the following statement of facts, illustrating most clearly the advantage to the agricultural interest, and in fact to all the industries of the country, of ready communication between the consumer and producer. It is a ball rolling upon itself; while it gives facilities for transporting, it diminishes the necessity of transportation. The statement is this: In railroad counties in New-York, the increase of population, since 1840, is 26 per cent; in canal counties, 18½ per cent; in North river counties, 16 per cent; other counties, 16 per cent. The entire length of railroads in the United States, in 1852, is estimated at 10,814 miles; in process of construction, 10,898.

NEW CONFECTIONERY.—Many of our readers must have noticed, if not partaken of, those new sugar drops, flavored like, and duly labelled, "*Banana Drops*," "*Pineapple Drops*," &c., &c. A mere taste is enough to convince one that they contain acids. Such is the fact. *Fusel oil*, which is distilled from sundry vegetables, is the basis of them all. If this oil is united with acetic acid, we get the flavor of the banana, with nitric acid, of the pineapple,

&c. Our inference is, that however palatable, they are not especially beneficial to the stomach or the teeth.

THE CENSUS of 1850 presents the following condition of the several agricultural products of the United States:

Acres of improved land.....	112,042,000
Value of Farming Implements and Machinery.....	\$151,820,273
Value of Live Stock.....	\$552,705,238
Bushels of Wheat.....	104,799,230
“ Indian Corn.....	591,586,053
Pounds of Tobacco.....	199,532,494
Bales of 400 lbs. each of ginned Cotton.....	2,474,214
Pounds of Wool.....	52,422,797
Gallons of Wine.....	141,295
Pounds of Butter.....	312,202,280
“ Cheese.....	103,184,585
Tons of Hay.....	13,605,300
Pounds of Maple Sugar.....	32,759,363
“ Cane Sugar.....	318,644,000
Home-made Manufactures in the States.....	\$27,525,545
The Manufactures are set down as follows:	
Value of Raw Material....	\$530,000,000
Amount paid for Labor....	550,000,000
Value of Manufactured Articles.....	1,020,300,000
Number of Persons employed	1,050,000

SHADED FLOWERS LAST LONGEST.—The *Gardeners' Journal* recommends shading flowers, while blooming, in order to continue them in blossom a much longer time. Speaking of an exhibition of American flowers in Regent's Park, London, the writer says:

“The practice of shading plants from the direct rays of the sun receives an illustration on a broad scale, in this exhibition. The result of which is that the plants, which in the open air, exposed to the sun, would last in perfection two or three days only, continue here, shut out as they are from the sun, and exposed to a damp, cool, and still atmosphere, no less than a month, and some of them still longer. This, then, is the result of shading plants while in flower. . . . In all cases where it is possible, the shading ought to be movable, so as to be taken down at pleasure.”

BROWN'S PATENT FUMIGATOR.—This is an excellent English contrivance for fumigating trees and plants, to destroy insects. Tobacco is placed in the magazine at top, and lighted in the same manner as an ordinary smoking-pipe. A draught of air is produced for its combustion by the revolutions of a fan, which draws the smoke in at one part of the cylinder and drives it forcibly out at another in a cool state. It is used in

fumigating orchards, fields of turnips, &c., as well as green-houses. It may also be used in cellars, out-houses, &c., wherever insects are troublesome. It is a simple, convenient article, easily used by any one. It is highly recommended by all who have used it in England and this country, and must become of very general utility. It may be had in Boston, of our friend Bowditch, and perhaps others, and also in New-York. The price, we believe, is \$5.

GOLD AND SILVER.—We find a statement, in the *United States Economist*, of the amount of these metals produced in the years 1846 and 1850. The summing up, in pounds sterling, is as follows:

GOLD. 1846.
In Europe, Asia and Africa,*...£4,545,192
In North and South America,...1,301,560

SILVER.
In Europe, Asia and Africa,*...1,254,306
In North and South America,...5,261,619

Total of gold and silver in 1846, £12,362,677
GOLD. 1850.

In Europe, Asia and Africa,*...£5,312,533
In North and South America...13,341,989

SILVER.
In Europe, Asia and Africa,*...1,528,592
In North and South America,...7,259,824

Total of gold and silver in 1850, £27,440,788

BUGS ON VINES.—The best cure that we know of is, an affectionate squeeze between the thumb and finger. Somebody, however, commends the following:

“Mix a table-spoonful of spirits of turpentine with a quart of plaster, (gypsum,) stirring them well together, and sprinkle the mixture over and among the plants. Repeat the process in two or three days. It is said to be effectual.”

GRIPES IN HORSES.—An English writer says, that we never need lose a horse by this disease, provided we administer, when first attacked, one ounce each of spirits of nitre and paregoric, in a quart of warm water.

THE WOOL CROP.—The wool produced in the United States is about 52½ million lbs., while the quantity manufactured is about 71 millions. The wool-growing States, in their amount of products, are set down as follows: Ohio, 10½ million pounds; New-York, 10 millions; Pennsylvania, 5 millions; Vermont, 3½; Virginia, 3; Indiana, 2½; Kentucky, 2½ million pounds.

A FINE OMELETTE.—MONS. SOYER, the greatest French cook of his day, and re-

* Exclusive of China and Japan.

cently deceased, gives us the following among thousands of excellent recipes:

Eggs are good simply baked in a buttered dish, or put into a flat dish that will bear the oven, a piece of butter the size of a walnut, the same of grated cheese, the yolks of two eggs, some grated nutmeg or cinnamon; mix these on the dish, put it in the oven till set, then gently break six eggs on the dish and grate cheese over and replace it in the oven till set, and serve hot.

TO PROTECT HAMS FROM FLIES AND BUGS.—Grind some black pepper fine, and put in a box, and as soon as the hams are thoroughly smoked, take them down and sprinkle the pepper over the raw part, and hang them again in the smoke-house. No fly or bug will touch them.

AN EXCELLENT YEAST.—Boil a pound of fine flour, (add a pound of brown sugar and a little salt,) in two gallons of clear water, for an hour. Allow it to stand afterwards till it becomes cool, or about milk-warm. then bottle and cork it close.

GRIDDLE CAKES OF UNBOLTED WHEAT.—One quart of unbolted wheat, and a teaspoonful of saleratus, wet with water or

sweet milk, in which has been dissolved one teaspoonful saleratus. Add three spoonfuls of good molasses, or an equivalent of brown sugar. Cook in the usual way. Some prefer sour milk and saleratus, and prefer yeast to the latter.

FOOD FOR MILCH COWS.—The experiments of Hon. John Brooks of Princeton, Mass., during the last winter, led to the following results:

That 2 lbs. of Indian meal are very nearly equal to one half per cent. of live weight of hay; or that one pound of meal is nearly equal to 4 lbs. of good hay.

That 2 lbs. of oat straw is not equal to one pound of hay.

That hay, straw and meal are improved by wetting them.

That cut hay is better than uncut.

That 3 lbs. Indian meal are equal to 12 lbs. of English hay, or 50 lbs. of flat turnips, for milk.

That 33 lbs. carrots are not quite equal, for milk, to 50 lbs. flat turnips, or 3 lbs. of Indian meal.

On consuming 869 lbs. hay, the manure dropped weighed 2,122 lbs., giving 2.44 lbs. manure to a pound of hay. The manure weighed 50 lbs. per cubic foot.

TOPICS OF THE PRESS.

STOWELL SWEET CORN.—This is a new sort, and is every way superior to any other we have seen; for after being pulled from the ground, the stalks may be placed in a dry, cool place, free from moisture, frost, or violent currents of air, (to prevent drying,) and the grains will remain full and milky for many months. Or the ears may be pulled in August, and, by tying a string loosely around the small end, to prevent the husks from drying from the ears, they may be laid on shelves and kept moist and suitable for boiling, a year or more. This corn is hybrid, between the Menomoney soft corn and the Northern sugar corn, and was first grown by Nathan Stowell of Burlington, New-Jersey. We purchased from Mr. S. a small number of ears dried for seed, and he presented us with a few ears surrounded by the husks grown the previous summer; the inner leaves of the husks were in as green a state as when pulled the previous August. Near the close of the late Fair of the American Institute, we presented the managers with two ears pulled in August, 1849, and twelve ears pulled in August, 1850. They were boiled and served up to-

gether, and appeared to be alike, and equal to corn fresh from the garden.

The ears are longer than the usual sweet corn, and contain twelve rows. To save the seed, it is necessary to place them in strong currents of air, freed from most of the husks, and assisted slightly by fire heat when nearly dry. In damp places, this corn soon moulds and becomes worthless. The seed, when dry, is but little thicker than writing paper, but is a sure grower. The stalks are very sweet and valuable as fodder.—*Working Farmer.*

PROPER FOOD, AT THE PROPER TIME.—Our friend, Mr. C. C. Coffin, writes thus in the *Journal of Agriculture*. He has thought of something besides telegraphs. He says:

Why do the livery-stable keeper and the circus rider give their horses oats, in preference to corn? Because they contain the very things that give life and energy. Think you the same agility would be seen in the arena after a feed of meal? Not at all. The favorite steed would be as lazy as an alderman after dinner. Why does the farmer withhold fattening food from

the young animal? Because it is necessary to develop the system in all its parts first. A judicious farmer will not give the young pig much meal; he will give it milk and other food that will contribute to growth rather than obesity. The different periods of life require different qualities of food. The infant needs milk; solid food cannot be used until the system has become strong. Stimulants are hurtful to the young, and they are not necessary to the system in its prime. It is only when the blood begins to be sluggish and thick, that they are necessary. Wine, for the young man, is fuel for the fire; and just in proportion as that fuel is heaped on, so much fiercer will it blaze, and so much quicker will come ashes. Judicious farmers understand this principle, and hence do not give the young colt oats and meal in abundance.

It is often the case that the owner of a well formed colt, anxious to bring him out before his time, and exhibit him as something extraordinary, introduces the forcing system—gives high feed, and makes the animal a hot-house plant, as it were. Before long the consequences are manifest in tender feet, swelled limbs, and overgrown joints. It is clearly a pernicious practice to give colts meal or oats in large quantities.

CULTURE OF TOMATOES.—A correspondent of the *Genesee Farmer* says, that his plan is, to plant the seed in good, rich ground, and allow them to grow until they have made two, three or four shoots from the stalk; after which, prune all the side shoots that come out, and follow this plan all through the season, every three or four days, and let the vines grow the full length, never pinching off the ends. In this way I can raise earlier and better tomatoes than by any other plan, also a great many more of them. It is necessary to stake the vines up to keep them off the ground, and they will then grow from seven to nine feet long, with large bunches of tomatoes at the ends of the vines. Some of my neighbors have tried this plan and pronounce it far superior to every other.

USEFUL RECIPES.—The *Germantown Telegraph* endorses the following. The thing certainly appears very promising:

"ALBANY BREAKFAST CAKES.—Ten eggs, three pints of milk, quarter of a pound of butter, two teaspoonfuls of salt, half a teaspoonful of saleratus, and white Indian meal to make a thick batter; butter scalloped oval tins, fill them two thirds full, (they should hold about a pint,) bake for a full hour in a quick oven."

Then comes another which does not seem so conclusive. But we suppose if tried and the breakfast is lost, the *Telegraph* man

must be held responsible. But he is very good authority on all subjects:

"RICE BATTER CAKES.—Mix two cups of cold boiled rice with one cup of flour, and one cup of corn meal, and cold milk enough to form all into a stiff batter; to which add a little saleratus. Bake on a hot griddle. Nothing in the shape of hot cakes for breakfast can excel this dish."

DISEASE IN HOGS—"BLACK TOOTH."—A writer in the *Ohio Cultivator* says he has a large sow which he has bred from, about four years; she occupied a comfortable pen, and was in good condition; she dropped her pigs, February 10th, and they appeared well, but in a few days they manifested symptoms of disease, by breathing hard, and their throats appeared affected, and some died. He recollected hearing of a disease in pigs called the "Black Tooth," and that by breaking out such teeth, they would recover. On examining his pigs, he found that all of them had one or more black teeth on each side, about where the tusks grow; which he broke off at the gum. One of the pigs was so far gone, that he made no resistance in the operation; that one died. The remainder are alive and doing well.

WOOL TRADE.—The *Albany Evening Journal* says: "We were shown, a few days since, a circular from Philadelphia, signed by a large number of dealers, pledging themselves not to send into the Western States any agent to buy wool for them; provided, however, dealers in the Eastern States would come into the arrangement. This would in a measure check speculation; but whether it will be carried out or not, a few weeks will determine."

"At Troy, for the week ending May 8th, sales amount to 57,000 lbs. as follows: 20,000 full blood and Saxony, 42½c.; 2,500 three fourth and full blood, 40c.; 28,000 half and three fourth do., 39c.; 4,000 quarter and native do., 33½c.; 3,000 extra pulled, 39c."

"Receipts of the week have been about equal to the sales, leaving stock on hand same as last week, 400,000."

THE VEGETABLE CROP OF LOWER VIRGINIA.—The *Norfolk Argus* contains the following statistics of the export of vegetables from that city and its vicinity:

A BRISK BUSINESS.—The steamship *Roanoke*, on her trip yesterday to New-York, carried from our market fifty-seven barrels of strawberries, nicely put up in quart baskets, ten barrels of cherries, and two hundred and thirty-eight barrels of green peas.

The Baltimore boats, for a week past, have averaged each trip two hundred barrels of peas, besides quantities of fresh fish, crabs.

&c. One huckster alone, in our market, consumes fifty dollars' worth of ice per week in the way of preserving fish sent to the northern cities. In a fortnight the potato and cucumber crops will commence, and in about four weeks tomatoes will be ripe, when our farmers will reap a rich harvest.

It is estimated that not less than a half million of money will be realized the present season by the shipment abroad of early vegetables from this port. One lady horticulturist alone is cultivating thirty acres of land in strawberries, by way of experiment, and employs fifty pickers. It is a pleasure to ride through the farms in the neighborhood, and see the number of persons of both sexes, and of all sizes and complexions, busily engaged in gathering peas. They earn liberal wages, and not a loafer is at present to be found in our streets. So much for Virginia industry.

This is as it should be, and as it might be, with our present facilities of communication, over a large portion of the country. We should accustom ourselves to use more of our own raising, and less of the imported, if our own was offered to us as freely as it might be. Strawberries and cream form one of the most delicious luxuries, and might be afforded, as a matter of economy, at paying prices, by the mass of the community. So of other products now very limited in their use.

DEDICATION OF A COTTON MILL!—On the 22d ult. the Shaker cotton mill at Shirley village was dedicated to its legitimate use by a series of Shaker religious services. Nearly 200 people were present. A dedication hymn, composed by Elder Wm. H. Wetherbee, was sung; prayer was offered; the regular Shaker form of movement was performed; and a poem, composed by L. D. Grosvenor, was read. This Shaker mill is about three fourths of a mile from the village. It is capable of running 5,000 spindles, and is substantially built of brick. The Shakers seem to be growing in wealth. —*Worcester (Mass.) Spy.*

TIME FOR CUTTING GRAIN.—Professor Norton gives the following advice on this subject:

The time of cutting grain very sensibly affects the proportion of fine flour and bran yielded by samples of it. Careful experiments have shown, with regard to wheat, that when cut from ten to fourteen days before it is fully ripe, the grain not only weighs heavier, but measures more; it is positively better in quality, producing a larger proportion of fine flour to the bushel. When the grain is in the milk, there is but little woody fibre; nearly every thing is starch, gluten, sugar, etc., with a large per-

centage of water. If cut ten or twelve days before full ripeness, the proportion of woody fibre is still small; but as the grain ripens, the thickness of the skin rapidly increases, woody fibre being formed at the expense of the starch and sugar; these must obviously diminish in a corresponding degree, the quality of the grain being of course injured. The same thing is true as to all the other grains.

ADULTERATION OF GUANO.—Prof. Norton says: "The most barefaced impositions are practised in England, certain parties having sold a species of loam resembling Peruvian guano at a high price, the bags having been dusted, both inside and out, with some of the real article, to counterfeit the true smell." Purchasers of this valuable fertilizer on this side of the water will therefore look out for impositions, as Brother Jonathan is generally "not slow" in following such examples.

NEW ENEMY TO THE PEAR.—The *Salem (Mass.) Gazette*—which, by the way, says many excellent things, and is worthy of all confidence—states that a friend of his lately showed him a number of pear leaves, with small green worms upon them, some so small as to be almost invisible, and the largest three quarters of an inch in length. They are very ravenous, and some trees have been entirely stripped by them. The whale oil soap (about a pound to three gallons of water) kills them instantly. They commence by eating a small circular hole in the leaf, but soon demolish the whole, including the stem.

FLOWER BEDS.—Mr. Downing advises a lady subscriber to discard all her miscellaneous flowers, and fill her flower beds with Verbenas, Scarlet Geraniums, Salvias and Petunias. They will stand the sun and dry weather, and make the garden gay at all times.

RHUBARB SAUCE.—If the rhubarb stalk has a green spotted surface, it is a kind that may be cut up without peeling; if the red sort, the peel must be torn off before it is cut up. Cut the stalk into the stew-pan in pieces about an inch long, and add about half its weight of sugar with a little water and spicing if liked. Set it over a sharp fire, occasionally shaking the saucepan round, and when quite tender, pour it into a bowl to cool.

POLITICAL ECONOMY.—*Punch* says it has been proposed to tax stays, but was objected to, on the ground that it would diminish consumption.

ADVERTISING DEPARTMENT OF THE PLOUGH, THE LOOM, AND THE ANVIL.

Advertisements of a proper character will be inserted according to the rates expressed in the Table herewith subjoined. An Index of the BUSINESS ADVERTISED, and the NAMES OF ADVERTISERS, appears under the Table of Contents on the second page of the cover, thus presenting peculiar inducements to advertisers.

RATES OF ADVERTISING.

Space Occupied.	One Month	Two Months	Three Months	Six Months	One Year.
One square of 12 lines....	\$ 1 50	\$ 3 00	\$ 4 00	\$ 7 00	\$12 00
Two squares of 24 "	3 00	5 00	7 00	12 00	20 00
Three " of 36 "	4 00	7 00	10 00	15 00	25 00
One fourth of a page.....	5 00	8 00	12 00	20 00	32 00
One half of a page.....	10 00	15 00	20 00	30 00	50 00
One whole page.....	20 00	30 00	40 00	60 00	100 00

A square consists of TWELVE LINES of single width columns. The foregoing table, with these remarks, makes one square.

TO ALL

Agriculturists, Horticulturists, & Florists. The following valuable Books have just been published by

JOHN P. JEWETT & CO.,
17 & 19 CORNHILL,
BOSTON.

BRECK'S BOOK OF FLOWERS, being a complete guide to the cultivation of a Flower Garden; by Joseph Breck, Esq. Price 75 cents.

SCHENCK'S KITCHEN GARDENER'S TEXT BOOK.—A thorough work on the management of the Kitchen Garden; by Peter A. Schenck. Price 50 cents.

A TREATISE ON HOT HOUSES; Their Construction, Heating, and Ventilation; by R. B. Lenchars, Esq. Price \$1.00.

COLE'S AMERICAN VETERINARIAN, or Complete Farrier; by S. W. Cole. Price 50 cents.

COLE'S AMERICAN FRUIT BOOK, or Complete Orchardist; by S. W. Cole. Price 50 cents. 48,000 Copies of Mr. Cole's two excellent books have been already published. The above valuable books are for sale by the principal booksellers throughout the country. 500 Agents wanted to sell the above in every State in the Union. Address, (post paid,) the publishers. jy.tf

Massachusetts Horticultural Seed Store,

38 SCHOOL ST., BOSTON,

AZELL BOWDITCH, PROPRIETOR.

Just received at this well-known establishment, a large assortment of

GARDENING IMPLEMENTS,

Comprising—Shears for trimming hedges, and for trimming trees; Knives of various patterns, for pruning, budding, &c., &c.; Peach Pruners; Flower Scissors, &c., &c.

Also a large assortment of Perennial and Biennial Flower Seeds.

Garden Vases of various styles, Chimney Cans, &c.

Horticultural and Agricultural Books.

Bouquets, Cut-flowers, and fruit furnished at short notice. jy.

GREAT BARGAINS IN PIANOS.



PERSONS in want of Pianos are invited to examine our large assortment of instruments, which will be sold or let on the most reasonable terms. The Subscribers are the sole agents for the celebrated Boston houses, Hallett & Allen, A. W. Ladd, Woodward & Brown, and W. P. Emerson. Also in store, a good assortment of New-York Pianos. The great variety from which persons can here select, will enable them to procure a Piano that cannot fail to suit. Persons wishing a good Piano at a low price, will find it advantageous to call and examine. Pianos tuned.

SAFFORD & BROTHER,

369 Broadway, New-York.



C. J. GAYLER'S

SALAMANDER SAFES.

Depot, No. 90 JOHN STREET, Corner of Gold,

LATE OF 128 WATER STREET, NEW-YORK.

Gayler's Double Flange Salamander Safes possess more security against fire than those of any other maker.

The many severe tests to which they have been subjected, and recently in the great fires at Buffalo, Syracuse, Corning, St. Louis and San Francisco, have proved them to be fire-proof beyond all doubt. In every instance they have preserved their contents uninjured when exposed to fire.

Gayler's Safes are furnished with his improved Detector Lock, the reputation of which is fully established. For additional security against the application of Gunpowder, he has recently introduced his Patent Combination POWDER-

PROOF KEY-HOLE COVER. He has also lately introduced a NEW LOCK, which affords as full security against Pick-locks, False Keys and Gunpowder, as any other American Lock now known, not excepting those exhibited at the WORLD'S FAIR, the price of which is much below that of any other Lock now applied for extra security.

Salamander Safes, of all sizes, suitable for Merchants, Bankers, Jewelers, Lawyers, Dwelling houses, Steamboats, &c., on hand and for sale as above.

April



Philadelphia, Wilmington and Baltimore Railroad.

Four Daily Lines between Philadelphia and Baltimore.



FARE \$3.10.—A reduction of 10 cents made to those purchasing tickets at the office.

PHILADELPHIA, WILMINGTON, AND BALTIMORE RAILROAD LINES, at 8.15, 1.45, 3, and 10.15.

On and after Thursday, April 1st, the Mail Lines for Baltimore will leave the Depot, 11th and Market streets, as follows, viz.:

MORNING LINE at 8 1-4 o'clock, daily, except Sunday, through in 5 1-2 hours, stopping at all the regular way stations on the road.

AFTERNOON EXPRESS LINE at 1 3-4 P. M., daily, except Sunday. Through in 4 1-2 hours—stopping only at Chester, Wilmington, Elkton, and Havre de Grace.

NIGHT LINE at 10 1-4 P. M., daily; through in 5 1-2 hours, stops at the principal stations on the Road.

The trains leave Baltimore for Philadelphia, as follows:—Express train at 8 1-2 A. M., and Mail trains at 11 A. M., and 6 1-2 P. M.

NEWCASTLE AND FRENCHTOWN LINE AT 3 P. M.
The Steamboat Robert Morris will leave Dock st. Wharf daily, except Sunday, at 3 P. M. This line leaves Baltimore for Philadelphia from Bowly's Wharf at 6 1-2 A. M.

Fare by this Line, . . \$2.50 Forward Deck . . \$1.50

Hudson River Railroad,—New-York to and from Albany and Troy.

REDUCTION OF FARES.—Through Fares \$1.50 between Albany and New-York, on all Trains. On and after Monday, June 14th, the Trains will run as follows:—

Going North.

Leave New-York, from the Office, corner Chambers street and College Place, at

6 A. M. Express Train for Albany and Troy, connecting with Western Train, stopping only at Peekskill, Fishkill, Poughkeepsie, Rhinebeck and Hudson. Through in 4 hours, from 31st street.

7 A. M. To Peekskill, stopping at all way stations.

8 A. M. Way Mail Train for Albany and Troy, stopping only at Manhattan, Dobbs' Ferry, Sing Sing, Peekskill, and all Mail Stations North.

9 A. M. To Peekskill, stopping at all stations.

11.30 A. M. Passenger and Freight Train to Poughkeepsie, stopping at all Stations.

1 P. M. Way Train for Albany and Troy, stopping at Yonkers, Tarrytown, Peekskill, Cold Spring, Fishkill, New Hamburg, Poughkeepsie, Rhinebeck, Tivoli, Oakhill, Hudson, and Stuyvesant, and connecting with the Express Train leaving Albany at 6.30 for Buffalo.

4 P. M. Way Train, to Albany and Troy, stopping at Yonkers, Dobbs' Ferry, Dearman, Tarrytown, Sing Sing, Cruger's, Peekskill, Garrison's, Cold Spring, Fishkill, New Hamburg, Poughkeepsie, and all stations north, on signal.

4.30 P. M. To Poughkeepsie, stopping at all way stations.

6 P. M. Express Train for Albany and Troy, stopping only at Peekskill, Fishkill, Poughkeepsie, Rhinebeck, Hudson and Stuyvesant. Through in 4 hours from 31st street, and connecting with Western Trains.

6.15 P. M. To Peekskill, stopping at all way stations.

7.30 P. M. Emigrant and Freight Train for Albany and Troy, stopping at all way stations.

Poughkeepsie to Albany; leave Poughkeepsie at 6.15 A. M., stopping at all way stations.

Going South.

Leave Troy Engine Station at 5.45 A. M., and Albany at 6 A. M. Way Mail Train for New-York, stopping at all stations where there are Mails to be received and delivered.

Leave Troy Engine Station at 6.45 A. M., and Albany at 7 A. M. Express Train for New-York, stopping only at Hudson, Rhinebeck, Poughkeepsie, Fishkill, Cold Spring and Peekskill. Through in 4 hours.

Leave Troy Engine Station at 10.45 A. M., and Albany at 11 A. M. Way Train, stopping at Stuyvesant, Hudson, Oakhill, Tivoli, Barrytown, Rhinebeck, Hyde Park, Poughkeepsie, Fishkill, Cold Spring, Peekskill, Cruger's, Sing Sing, and Dobbs' Ferry.

Leave Troy Engine Station at 3.20 P. M., and Albany at 4 P. M. Way Train, stopping at Stuyvesant, Hudson, Oakhill, Tivoli, Barrytown, Rhinebeck, Hyde Park, Poughkeepsie, New Hamburg, Fishkill, Cold Spring, Garrisons', Peekskill, Sing Sing, Tarrytown, and Yonkers.

Leave Albany at 4.30 P. M., for Poughkeepsie only, stopping at all way stations.

Leave Troy Engine Station at 6 P. M., and Albany at 6.15 P. M. Express Train, stopping only at Hudson, Rhinebeck, Poughkeepsie, Fishkill, and Peekskill. Through in 4 hours.

Leave Troy Engine Station at 8.30 P. M., and Albany at 8.45 P. M. Night Mail Train, stopping at all stations on signal.

LEAVE POUGHKEEPSIE FOR NEW-YORK.

At 6.45 A. M., stopping at all stations above Peekskill, and at Cruger's, Sing Sing, Tarrytown, Dearman, Dobbs' Ferry, Hastings, Yonkers, and Manhattan.

8.45 P. M., Milk and Freight Train, stopping at all Way Stations.

LEAVE PEEKSKILL FOR NEW-YORK.

At 5.50 and 6.30 A. M., and 4 P. M., stopping at all way stations. Passengers will procure tickets before entering the cars. Tickets purchased after entering the cars will be 5 cents extra.

GEORGE STARK, Superintendent.

New-York, June 14, 1852.

New-York and Erie Railroad.—Summer Arrangement.

TRAINS RUN AS FOLLOWS:—Leave New-York from foot of Duane street, daily, as follows:—

1. Day Express Train, at 6.30 P. M., (Sundays excepted,) for Dunkirk, there connecting without delay, with first class steamers for Cleveland, running in connection with the Express Train for Cincinnati; and with first class steamers for Toledo and Monroe, running in connection with the Michigan Southern Railroad. (Dinner at Deposit, and supper at Hornellsville.) Passengers by this train take the Canandaigua Railroad at Elmira, and arrive at Rochester and Buffalo the same evening.

2. Mail Train at 8 A. M., (Sundays excepted,) stopping at all the stations. This train remains over night at Elmira, and goes on next morning at 7.30, arriving at Dunkirk at 4.55 P. M. (Dinner at Narrowsburgh.)

3. Way Train, at 3 P. M., (Sundays excepted,) for Piermont and Suffern.

4. Way Train, at 4.45 P. M., (Sundays excepted,) for Suffern and Otisville.

5. Evening Express Train, at 6 P. M. for Dunkirk, there connecting with first class steamers for Detroit direct; and also for Erie, Ashtabula, Cleveland, Sandusky, Toledo, and Monroe. On Saturdays this train runs only to Elmira. (Supper at Turner's. Breakfast at Hornellsville.)

6. Emigrant train at 6 P. M., (Sundays excepted,) for Dunkirk.

TRAINS TO NEW-YORK.

1. Day Express Train leaves Dunkirk at 6 A. M., (Sundays excepted,) and arrives in New-York the same evening. Passengers from Buffalo and Rochester take this train at Canandaigua.

2. Way Train leaves Otisville at 6.15 A. M., (Sundays excepted.)

3. Mail Train leaves Elmira at 8 A. M., (Sundays excepted,) stopping at all the stations, and arriving in New-York same evening.

4. Mail Train leaves Dunkirk at 9.30 A. M., (Sundays excepted,) stopping at Elmira over night.

5. Accommodation Train leaves Dunkirk at 1.30 P. M., (Saturdays and Sundays excepted.)

6. Evening Express Train, leaves Dunkirk at 5 P. M. Passengers from Buffalo and Rochester take this train at Canandaigua at 9.30 P. M.

NEWBURGH BRANCH.

Trains run daily, (Sundays excepted,) as follows.—Leaving Newburgh at 7.45 A. M., and 3.55 P. M. Leave Chester at 9.55 A. M., and 7.10 P. M.

FREIGHT TRAINS.

Freight Trains leave from foot of Duane street, at 6 P. M., for all stations on the road, and for Canandaigua, Rochester, Buffalo, and all the Western States.

CHARLES MINOT, Superintendent.

For Boston, Via Newport and Fall River.

By the splendid and superior steamers **EMPIRE STATE** and **BAY STATE**, of great strength and speed, particularly adapted to the navigation of Long Island Sound, running in connection with the Fall River and Old Colony Railroad, a distance of 53 miles to Boston only.

Leave pier No. 3, North River, near the Battery.
The steamer **BAY STATE**, Captain William Brown, on Mondays, Wednesdays, and Fridays, at 5 o'clock, P. M.

The steamer **EMPIRE STATE**, Captain Benj. Brayton, on Tuesdays, Thursdays, and Saturdays, at 5 o'clock, P. M.

This Line is the only one that runs direct from Newport.

These steamers are fitted with commodious state rooms, and every arrangement for the security and comfort of passengers, who are afforded by this route a night's rest on board, and on the arrival at Fall River proceed per railroad, reaching Boston early the following morning; or can remain on board until after breakfast, and leave Fall River at a quarter past 6

o'clock, A. M., by the accommodation train, which arrives in Boston at a quarter before 9 o'clock, A. M.

The rates for passage and the price of state rooms, the same as by the other lines.

A steamboat runs in connection with this line to and from Providence, daily, except Sundays.

Fare from New-York through to Providence, Fall River, or Newport, \$3. To New-Bedford, fare \$3 60.

Freight to Boston is taken at the same rates as by the other regular lines, and forwarded with greater expedition by an Express freight train, which leaves Fall River every morning (Sundays excepted) at 7½ o'clock, for Boston and New-Bedford, arriving at its destination at or about 11, A. M.

For freight or passage, apply on board, or at the office on Pier 3, North River. For state rooms or berths, apply on board; or if it is desired to secure them ahead, application may be made to **TISDALE & BORDEN**, Agents, 70 and 71 West street.

Camden and Amboy Railroad for Philadelphia.

From Pier No. 1, North River, foot of Battery-place, by Steamboat John Potter. Two lines daily. Morning Line leaves at 7 A. M.; Afternoon Express Line at 2 P. M., through to Philadelphia in 4 1-2 hours. Fares: 1st class cars, \$3; 2d class line, by 2 T. M., only \$2. Returning, leave Philadelphia from foot of Walnut st., at 8 A. M., and 2 P. M. Emigrant Line by steamboat Transport, from Pier No. 1, at 5 P. M. Fare, \$1,50.

FROM PHILADELPHIA FOR NEW-YORK, AND INTERMEDIATE PLACES.—Through in 4½ hours. At 8 o'clock A. M. and 2 o'clock, P. M., from Walnut street Wharf.

FARE, \$3. Second Class at 8 A. M., only \$2. Returning, leave New-York from Pier No. 1, North River, at 8 A. M., and 2 P. M.

EMIGRANT LINE.—At 4 o'clock P. M. Fare, \$1,50.

STEAMBOAT TINTON.—At 9 A. M., and 5 1-2 P. M., for Tacony, Burlington, and Bristol.

STEAMBOAT JOHN STEVENS.—At 2 1-2 o'clock, P. M., for Bordentown and Intermediate places.

RAILROAD WAY LINE FOR BORDENTOWN AND INTERMEDIATE PLACES.

At 4 1-2 o'clock P. M., from Walnut street Wharf.

For Freehold at 8 A. M., and 2 P. M.

For Lambertville at 9 A. M., and 2 1-2 P. M.

For Mount Holly at 9 A. M., 2 1-2 and 4 1-2 P. M.

Office for inquiry, 44 Delaware Avenue.

WILLIAM H. GATZMER,

Agent C. & A. R. R. Co.

New-York and New-Haven Railroad.—Summer Arrangement.

May 3, 1852.—Trains out of New-York, leave near corner of Canal street and Broadway.

ACCOMMODATION AND SPECIAL.—At 7 and 11.30 A. M.; 4.15, (Express to Stamford and Norwalk, and stopping at all stations beyond,) and at 5.30 P. M., through to New-Haven. At 3.50 P. M., for Norwalk—at 8.50 A. M., and 6.30 P. M., for Port Chester. The 11.30 A. M. runs in connection with train from New-Haven to Hartford and Springfield, and with train over the Canal Road.

EXPRESS TRAINS for New-Haven, Hartford, Springfield, Boston, Connecticut River and Vermont Railroads, to Ogdensburg and Montreal.—At 8 A. M., stopping at Stamford and Bridgeport, connecting with the Housatonic and Naugatuck Railroads at Bridgeport, and Canal Railroad at New-Haven—and at 3.30 P. M., stopping at Stamford, Norwalk, and Bridge-

port, connecting with Housatonic and Naugatuck Railroads at Bridgeport.

TRAINS INTO NEW-YORK.—Accommodation and Special.—At 5.30, 7, and 9.35, A. M., and 4.20 P. M., through from New-Haven. At 6 A. M., from Norwalk—at 5.30 A. M., and 3.45 P. M., from Port Chester. The 9.35 A. M., receives passengers from Springfield and Hartford and Canal Railroads at New-Haven. The 4.20 P. M. receives passengers from Hartford and Springfield Railroads.

EXPRESS TRAINS leave New-Haven on arrival of trains from Boston, at 1.15 and 8.50 P. M., (stopping at Bridgeport, Norwalk, and Stamford;) leaving Boston at 8 A. M., and 3.45 P. M.

See large bill of advertisement at the Station House and principal Hotels.

GEO. W. WHISTLER, Jr.,

Superintendent.

ANDREWS & JESUP,

No. 70 PINE STREET, New-York,

COMMISSION MERCHANTS

FOR THE SALE OF ALL KINDS OF

COTTON AND WOOLEN MACHINERY, LEATHER BELTING, &C.; BROKERS IN DYE-WOODS, DYE-STUFFS AND OILS. ALSO, IMPORTERS AND DEALERS IN EVERY VARIETY OF

MANUFACTURERS' ARTICLES.

Mar. 1y.

J. E. BADEAU,

Designer and Engraver on Wood,

102 NASSAU STREET, Corner Ann, NEW-YORK.

Mar. 3t.

FARMER'S BOILERS, OR LAUNDRY KETTLES,

OF ALL SIZES, FOR SALE BY

BARTLETT, BENT & SON,

No. 238 WATER STREET, New-York.

Mar. 1y.*

TO PRACTICAL MEN.

Just Published.

NORRIS'S HAND BOOK FOR LOCOMOTIVE ENGINEERS AND MACHINISTS. 12mo. \$1 50.

"Coming from such a source it is a work which we hail as a boon to the Engineering Community."—*Scientific American*.

"With pleasure do we meet with such a work."—*Artisan*.

"The practical knowledge of such men can hardly be over-estimated."—*Balt. Patriot*.

THE ASSAYER'S GUIDE; or Practical Directions to Assayers, Miners and Smelters for the Tests and Assays by heat or wet

processes of the Ores of all the principal Metals, and of Gold and Silver Coins and Alloys. By O. M. LIEBER. 12mo. 75c.

THE PAPER HANGER'S COMPANION. By JAMES ARROW SMITH. 12mo. 75c.

A TREATISE ON A BOX ON INSTRUMENTS AND THE SLIDING RULE, for the use of GAUGERS, ENGINEERS, SEAMEN AND STUDENTS. By THOMAS KENTISH. Illustrated by numerous engravings. 12mo. \$1.

THE PRACTICAL MODEL CALCULATOR, for MECHANICS, ENGINEERS, NAVAL ARCHITECTS, &c. By OLIVER BYRNE. In one vol. royal 8vo. \$3 50.

HENRY CAREY BAIRD,

SUCCESSOR TO E. L. CAREY,

Scientific Publisher, Philadelphia.

June, 31.

UNION AGRICULTURAL WAREHOUSE AND SEED STORE.

RALPH & CO.,

Manufacturers and Venders of Agricultural Implements and Machinery
and Dealers in Field and Garden Seeds, Fruit and Ornamental
Trees, Domestic Animals, Fertilizers, &c.,

NO. 23 FULTON ST., NEAR FULTON MARKET, NEW-YORK.

THE Subscribers announce to their friends and the public that they have opened an establishment for the manufacture and sale of articles as above, which they offer at moderate prices.

The principal Implements and Machines are made under their own immediate supervision, by experienced mechanics, from the best materials, and after recently improved models.

THE SEED DEPARTMENT embraces all the approved varieties adapted to the field and garden culture of the West Indies, Mexico, and the whole territory of the United States; and the FRUIT and ORNAMENTAL TREES, as well as the DOMESTIC ANIMALS, furnished by us, will be of the choicest kinds, and selected by competent judges.

Among the FERTILIZERS are included the best quality of Peruvian Guano, Plaster, Bone Dust, and Native Phosphate of Lime.

In order to give an idea of our establishment, and to avoid replies to numerous inquiries, we have issued a "Descriptive Catalogue" of about 100 pages, containing the Price List, and

various engravings illustrative of some of the articles we keep on sale, which will be furnished *gratis* to those who may apply for it personally or by mail.

All orders for goods, &c., will be punctually executed, which may be addressed to us, by mail or otherwise, accompanied with the money, or a draft at sight or acceptance on some responsible house in Boston, Philadelphia, or New-York.

The direction may be made in French, German, Spanish, Portuguese, or English, which should be written out in full, in a clear and intelligent manner, in order to avoid mistakes or delays, which might otherwise occur.

Produce on Consignment.—We are prepared to receive and sell on commission all kinds of Agricultural Produce, not immediately perishable; such as grain, seeds, indigo, cochineal, beef, pork, butter, eggs, rice, sugar, molasses, honey, wax, hides, cocoa, tobacco, cotton, wool, hemp, mahogany, &c. &c.

RALPH & CO.

March, 3m.

ALDERNEY & IMPROVED SHORT HORN CATTLE.

Three thorough-bred Alderney Bull Calves, two of Nine, and one Eleven months old raised from the choicest imported stock.

Also, Two thorough-bred short horn Bull Calves, Ten months old, raised on the Farm of Mr. T. P. REMINGTON, near Philadelphia and FOR SALE by

AARON CLEMENT,

Cedar Street, above Ninth Street, Philadelphia.

Mar. 11.

DICKENS' "HOUSEHOLD WORDS."

A Weekly Journal, designed for the Instruction and Entertainment of all classes of readers, and to assist in the discussion of the social questions of the times.

\$2.50 a Year by Mail—6 cents a Number.

To CLUBS—Three copies for \$6; Five copies for \$9; Ten copies for \$15.

OPINIONS OF THE PRESS.

Weighty is the matter, and buoyant the style.—*New-York Daily Times.*

It will cause many a family hearth-stone to glow more brightly.—*Tribune.*

No one can peruse this work without being wiser and better.—*Albany Argus.*

To be had of all the Booksellers and Periodical dealers throughout the Union.

ANGELL, ENGEL, & HEWITT, Publishers, No. 1 Spruce St., N. Y.

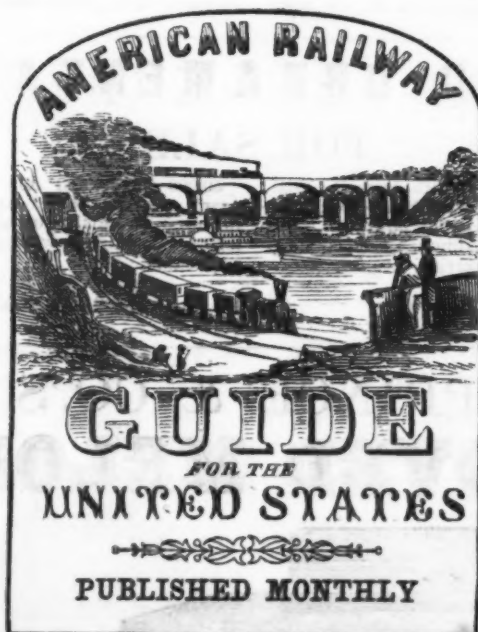
THE NORTH AMERICAN MISCELLANY AND DOLLAR MAGAZINE,

Is issued monthly, in elegant style, 56 large octavo pages, splendidly illustrated. The contents consist of choice Historical and other Tales of high literary character, Biographies, Essays, Anecdotes, Reviews, Poetry, Criticisms, etc.; to which

is added a **Chronicle of Passing Events**, containing the principal items worthy of record.

Yearly subscription by mail, \$1. To CLUBS—Five copies for \$4; Ten copies for \$7.

ANGELL, ENGEL, & HEWITT, Publishers, No. 1 Spruce St. N. Y.



BY CURRAN DINSMORE & CO.,

22 SPRUCE STREET, New-York.

TO BOOKKEEPERS, CLERKS, AND LITERARY MEN.

An indispensable piece of Stationery may be found in

GREEN'S PATENT INK & PENCIL ERASER.

This Article is manufactured and sold by the Inventor,

AT 412 BROADWAY, NEW-YORK.

Aside from its superiority over the Scraper and ordinary India Rubber, in facilitating the removal of Ink and Pencil Marks and preserving the Paper, it removes smears occasioned by perspiration of the hand, and other dirt, leaving a beautiful surface to write upon. All this is done, without fear of

destroying the grain or body of the paper. And any person sending to the above address **TWELVE AND A HALF CENTS, post-paid**, will receive in return one piece of the Rubber, **post-paid.**

A liberal discount will be made to the trade and agents.

J. H. GREEN, 412 Broadway.

FRANCIS' PILOSITOUS COMPOUND

IS GUARANTEED to restore the hair in all cases. The conditions are made known in the circular that accompanies each bottle. For a toilet article, to beautify and soften the hair, to remove blotches and pimples from the skin, there is nothing superior. If the proprietor dealt in certificates, he could have had a large collection on hand, but his terms will satisfy every candid person as being perfectly equitable.

Contract prices vary from 20 to 75 dollars. His Perennial

Compound is prepared to restore gray hair to its original color without dyeing, for which the contract price is \$10 per head.

For sale by F. M. CRAKEN, 312 Broadway, New-York, who is the Sole Proprietor and Manufacturer. Price twenty-five cents per bottle, with a liberal discount to dealers. Foster & Makin, 70 Dock street, Philadelphia, A. S. Jordan, 191 Webster street, Boston, are agents, with other respectable Druggists throughout the Union.

Dec. 51.

HENRY L. FOSTER,

LATE "BOOTH & FOSTER,"

CLOTHING AT WHOLESALE & RETAIL,

27 Courtland Street, New-York.

Clothing made to order in the best style, and sent to any part of the United States.

FRUIT AND ORNAMENTAL TREES FOR SALE.

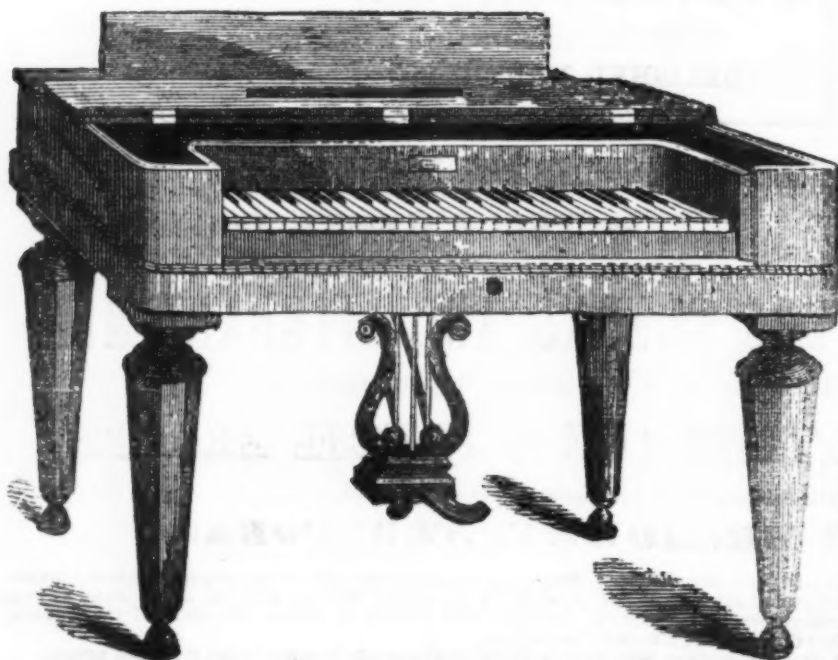
50,000 Peach of one and two years' growth, from the bud; 40,000 Apple; 5,000 Cherries; 5,000 Dwarf Pears—each containing all the most esteemed varieties, and of large size. Also Quinces, Plums, Nectarines, Apricots, Almonds, Grapes, Raspberries, Gooseberries, Currants, Strawberries, &c., &c.

Hightstown, Mercer County, N. J., March, 1852.

50,000 Silver and Ash Leaved Maple Seedlings of one year's growth; 50,000 Apple seedlings. They will be sold in large or small quantities, and on the most reasonable terms. Catalogues, with prices annexed, will be sent to all applicants.

ISAAC PULLEN.

PRINCE & CO.'S IMPROVED MELODEON.



This instrument, formerly known as Carhart's Patent, has of late received valuable improvements by the manufacturers, G. A. Prince & Co., and now, as we believe, is recognized as the most perfect in its construction, and in the quality of its tones of any instrument of the kind yet offered to the musical public.

The cases are of rosewood, and as handsomely finished as a piano forte. The key board is precisely the same as the piano or organ, and the tone clear, pure, and round, and in volume equal to a small organ, and by means of a swell may be increased or diminished at the pleasure of the performer.

The key notes respond at the slightest touch, and will admit of the performance of as rapid passages on the piano. One pedal controls the swell, and the other supplies the wind, and works so easily that a child can manage it effectively.

Of these instruments, we understand that from 75 to 80 are made per week by Messrs. Prince & Co. at their manufactory in Buffalo, where they have one hundred and fifty men in constant employ.

For further particulars we refer our readers to Messrs. W. HALL & SON, 239 Broadway, who have lately become sole agents in this city for the sale of the above celebrated instruments.

SEVENTH ANNUAL REPORT OF THE NEW-YORK LIFE INSURANCE COMPANY, NO. 106 BROADWAY,

MADE IN ACCORDANCE WITH THE PROVISIONS OF THE CHARTER.

Amount of Assets as per statement of Jan., 1851, \$354,755 24
During the year 1851, 1,329 Policies have been issued. The premiums during the same period amounted to \$303,074 64
Amount received for interest, 18,708 08
\$321,782 72

Disbursements.

Amount paid for losses by death, less discount for payments in advance, \$157,05 16
Amount paid for expenses, viz.:
Salaries, fees to physicians, trustees, clerk hire, &c., 10,122 83
Advertising, office rent, furniture, printing, stationery, &c., 5,062 79
Commissions, postages, medical examinations, exchange, &c., 37,861 16
Interest on dividends, dividend on subscription notes, re-insurances, &c., 4,657 57
Taxes, 3,494 34
Return premiums allowed on cancelled policies, 1,534 01
219,786 86
101,995 86
\$456,751 10

Assets.

Invested in United States and New-York State Stocks, in accordance with the charter, \$185,866 59
Cash on hand, 26,079 11
Bonds and Mortgages, 62,577 00
Notes received for 40 per cent. on Life Policies, 175,016 53
Premiums on Policies in hands of Agents, 7,221 87
Total amount of accumulated Capital, \$456,751 10

The Board of Trustees have declared a dividend of FORTY PER CENT. on Policies for the whole term of Life, and six per cent. interest on former dividends.

The principles of this Company are purely mutual, so as to be the most economical and secure to the members.

Dividends are made annually on all Life Policies in the shape of Stock, bearing interest at 6 per cent., payable in cash.

These Dividends have always been 40 and 50 per cent.; by this mode the annual premiums are regularly reduced from year to year.

On Life Policies, where the premiums amount to \$50, 40 per cent. of it can be paid by note.

Pamphlets, containing full exposition of the principles and mode of operation, can be had gratis at the office of the Company, 106 Broadway, New-York, or at any of its Agencies.

MORRIS, FRANKLIN, President.

PLINY FREEMAN, Actuary.
Jan. 31, 1852.

Mar. 3m.

Manhattan Life Insurance Company, 108 Broadway, Cor. Pine Street, N. Y.

CASH Capital \$100,000



DEPOSITED WITH THE COMPTROLLER OF THE STATE FOR THE SECURITY OF ALL POLICY HOLDERS, exclusive of a large and rapidly augmenting Premium Fund.

Persons insuring with this Company, will be entitled to their pro rata share of the first declared dividend. The rates and principles adopted have stood the test of experience, and must secure, beyond contingency, the object for which Life Insurance is effected,—immediate and permanent aid to the widow and orphan.

A. A. ALVORD, President.

C. Y. WIMPLE, Secretary.

N. D. MORGAN, Actuary.

ABRAHAM DU BOIS, M.D., Medical Examiner, attends at the office daily, from 2 to 3 o'clock P.M.

Prospectuses to be had at the office gratis.

Mar. 3m.

MECHANICS' UNION ASSOCIATION,

Office, CITY ASSEMBLY ROOM, 442 BROADWAY, New-York

Accumulated Cash and Guaranty Capital, \$50,000.

M. B. DEAN, President.

W. PATTEN, G. C. WOOD, H. B. JUDKINS, Financial Committee.

This is an Association of Workingmen and others, for the mutual assistance of each other in case of sickness or accident.

By the payment of the following annual deposits, you will become a life member, and will be entitled to a weekly benefit during life, if you should be disabled by sickness or accident from attending to your ordinary business or occupation. Females Insured against sickness common to both sexes.

Yearly Deposit of Members under 50 years of age.
\$2 00 per year draw \$3 00 per week.

3 00	"	"	4 50	"
4 00	"	"	6 00	"
5 00	"	"	7 50	"
6 00	"	"	8 75	"
7 00	"	"	10 00	"

Those over fifty years of age will be charged twenty-five per cent. extra. \$1 50 admission fee will be charged in addition to the above, the first year, and must be paid at the time of application, and the first year's deposit within thirty days. mr.

Mechanics' Mutual Benefit Association of Springfield, Mass.,

Branch Office, 289 Broadway, New-York.

Accumulated Cash Capital, \$33,000; Guaranty Capital, \$60,000.

This is an Association of Mechanics and others, for their mutual relief in the case of sickness or accident, and at the decease of a member, this Association shall appropriate \$20 as a Funeral Benefit, to be paid to the relatives of the deceased.

One Dollar and fifty cents, in addition to the above, will be charged as admission fee, for the first year.

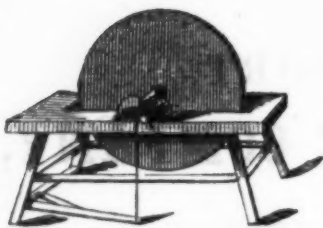
Annual Rates of Payment for Members under 50 years of age.
\$2 00 draws \$2 per week. \$6 00 draws \$6 per week.

3 00	"	3	"	7 00	"	7	"
4 00	"	4	"	8 00	"	8	"
5 00	"	5	"				

Female Rates from \$2 to \$4.

S. C. FRANK, Secretary,

BROADWAY, First Floor, up stairs, room No. 10.



WILLIAM K. TAYLOR'S Grindstone Establishment, No. 5 HUDSON STREET, Corner of Reade, New-York.

At this Establishment may at all times be found all kinds of GRINDSTONES, dressed and undressed, mounted in FRAMES and IRON BOXES; or the boxes and cranks with friction rollers and stone separate, to suit customers.

Among the stone kept here are the OHIO, NOVA SCOTIA, and

NEWCASTLE, assorted and warranted perfect. KITCHEN, GRINDSTONES of all sizes, in iron boxes. CUTLERS' and DENTISTS' GRINDSTONES of first quality, and warranted; and also furnished at wholesale or retail. Country Merchants, and those who buy to sell again, are invited to call. Apr. 1

FAIRBANK'S PLATFORM SCALES.

The subscribers keep constantly on hand every variety of these superior Balances, warranted in good faith to be ACCURATE DURABLE, AND NOT LIABLE TO DERANGEMENT, or expense for repairs.

FAIRBANKS & CO.,

89 Water Street.

Certificate of the Inspectors of Weights and Measures in New-York.

"We, the undersigned, having had occasion to test the various Platform Scales now in use in the City of New York, are pleased to bear testimony to the superior character of those manufactured by E. & T. FAIRBANKS & CO., St. Johnsbury, Vt., and do cheerfully recommend them to the public as the most perfect Weighing Machines in use.

[M'v-R]

HENRY SWORDS,
ENOCH DEAN.

EDMUND WEEKS,
JOHN S. EARLS.

PETER ESQUIROL,
JOHN W. WHEELER."



\$25 ONLY



For eight village Lots, or one of Fifty Farms, containing from Four to Twenty Acres each, adjoining the Villages of Lake Land and Hermanville—many of the Lots near these have already been sold for 100 per Cent advance over the price for which these Lots are now sold for, showing conclusively that the purchase will be a good investment.

The opportunity is now offered to all those who ever wish to obtain land on Long Island, the ancient "Garden of America," that will probably never occur again, for these lands are the only remaining new lands on the island, and are equal in quality, when cultivated, to any other land.

50 FARMS, WORTH OVER \$10,000, AND 6,000 LOTS, TO BE DISTRIBUTED AMONG 800 SUBSCRIBERS.

Each subscriber is entitled to 8 Lots, 25x100 ft., lying together, or one of 50 farms containing from 4 to 20 acres each, for \$25. The shares are limited at \$25—payable, \$5 when subscribed for, \$5 on or before the day of distribution, and the balance in monthly instalments of \$3.

The lots are situate in the Village of LAKE LAND, on the Long Island Railroad, County of Suffolk, and 48 miles from the city of New York, where handsome buildings are erected.

The results of cultivation of these lands have been so great, so much beyond the expectations of any one, that they are now considered of great value for farms and gardens, and will, in all probability, be all taken up for settlement and occupation, or be held at more than five times their present price. All kinds of produce are raised there, such as wheat, rye, corn, potatoes and garden vegetables, with fruits and flowers, in the most luxuriant growth, where but a short time since the land was covered with trees and bushes.

I add the following letter from Mr. L'Hommedieu, who resides at Lakeland:—

LAKELAND HOTEL, NOV. 18, 1851.

Dear Sir—Having personal knowledge of the same, it gives me pleasure to answer your inquiry about the productions here, by stating that during the past season there have been raised 150 bushels of the best corn and potatoes to the acre, besides excellent yields of garden vegetables, as peas, beans, onions, squashes, pumpkins, beets, tomatoes, egg plants, &c.

IRA L'HOMMEDIU, Deputy Postmaster.

Also one from Mr. J. C. Boeckel:—

NEW YORK, July 2d, 1851.

Dear Sir—I bought last year a farm of forty acres in the middle of the new Village of Hermanville, and I would not sell it now for \$100 an acre.

Very respectfully yours, &c.

JOHN C. BOECKEL, 99 Essex-st. N. Y.

To Charles Wood, Esq., 117 John-st. N. Y. city.

Lakeland Station is located on the borders of the Long Island Railroad, whence cars run several times a day to Brooklyn and New York. The surface of the land is

smooth and level, and the surrounding country is perfectly healthy, and within a few miles of this place, highly cultivated and valuable, having been settled for more than a hundred and fifty years, and where similar lands sell at from \$50 to \$200 per acre.

The surface of the ground is perfectly beautiful, free from stone, or bogs or marshes, and the climate as healthy as can be found in this latitude. The soil is a fine loam, admirably adapted to high cultivation and great crops, and of easy tillage.

When a man is industrious and attentive to his business, he soon becomes independent. Mr. John J. Stoothoff, of Jamaica, L. I., received in the year 1847, from about 30 acres of land, cultivated in Peaches, Peas, Potatoes, and Asparagus, about \$3,600. He sent all his produce to market with teams, a distance of more than 12 miles.

Mr. Van Sicklin, of Jamaica, L. I., cultivates 69 acres of land at a cost of about \$1,100 in labor and manure, and receives about \$3,600 per year. (See American Agriculturist, Feb. No. 1848, and also the Transactions of the New York State Agricultural Society.) These important cases show what industry and prudence can do on Long Island land. The land of Messrs. Stoothoff and Van Sicklin is very much such land as this now offered for sale, being in the same range of the island, and in no way superior to these new lands.

Indeed no New England or Northern New York man can form any adequate idea how much less labor and strength are required to cultivate these island lands than that required to subdue their own rugged lands, until he has seen or made the trial; and I now offer for sale as handsome land, and intrinsically as valuable, as can be found within fifty miles of the City of New York, in any direction, in lots of five acres or more, for the sum of from \$20 to \$30 per acre, or exchange for city property.

Any person wishing to purchase a five, ten, twenty, or fifty acre lots of good and handsome land, without one foot of waste or useless ground on it, can do so by sending one dollar per acre for first payment, and the further sum of fifty cents a month per acre until one-half is paid, when a warrantee deed and good title will be given, and the remainder part of the purchase money may be paid or secured on the land, to be paid within five years, with six per cent, yearly interest.

The title is perfectly good—I have a history or deduction of the title complete—certified to by legal men of the highest character, which I will send by mail, with maps, pamphlets and all information, to all purchasers, or those who wish to be informed of these island lands, by applying to

CHARLES WOOD, Stationer, 203 Broadway, corner of Fulton-st. N. Y.

References as to the quality of the lands can be made to Hon. Henry Meigs of the American Institute, Rooms 351 Broadway. N. Y.; C. M. Saxton, publisher, Fulton-st. N. Y.; Dr. E. F. Peck, Brooklyn; G. H. Striker, Jr. New York; Liberty Gilbert, Troy, N. Y.; Geo. C. Morgan, Jr. New York; John C. Boeckel, N. York; J. C. Easton, Editor of Northern Journal Lowell, N. Y.; O. Squires, Editor of Herkimer Journal, Rockton, N. Y.; Chandler Foster, Albany, N. Y.; V. B. Palmer, Philadelphia and Boston; E. H. Pease, Albany, N. Y.; D. Rounds, Mansville, Jefferson county, N. Y.; and many others. See pamphlet.

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THE original and only genuine article that can be sold without infringing upon my patent. This article, in a few months after being applied, turns into slate or stone, forming a complete enamel or coat of mail over whatever is covered, bidding defiance to fire, weather, or water. It has been found, upon analysis by Dr. J. R. Chilton, of this city, to consist of larger proportions of silica, alumina, protoxide of iron, and magnesia, with lesser of lime and carbon. The transition, therefore, from the soft paint to the hard slate is (in the opinion of Drs. Chilton and Lock) accounted for according to nature's own laws; and the longer it is on, the harder and more permanent it becomes. It has been tested about seven years, and that first applied is now like stone. It has also been tried in several fires in Akron, Ohio, where all the fire insurance companies have since published that they will insure buildings, &c., covered with this substance, at a lower rate of premium than those covered with tin or zinc, considering it a better fire-proof.

The Fair of the American Institute have, for the last three years, awarded to me the highest premiums. Diplomas have

BLAKE'S

PATENT

FIREPROOF PAINT.

also been presented from the New-York State Fair, and the State Fair of Massachusetts.

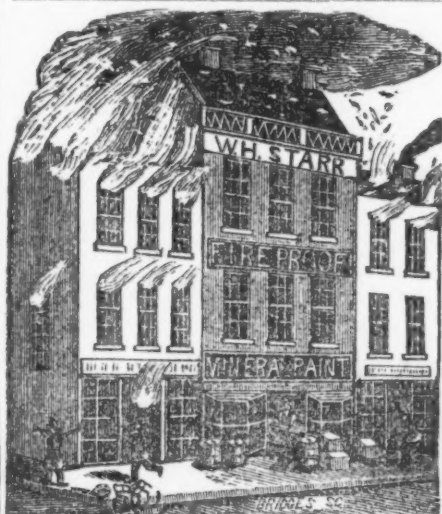
LOOK OUT FOR FRAUD.

As there are scores of unprincipled individuals digging, grinding, and endeavoring to sell all kinds of worthless, counterfeit stuff, calling it fire-proof paint. No one can manufacture and sell the genuine without infringing on my patent, which, having been submitted to referees, and also to the Hon. Daniel Webster, is decided to be good and valid. I have just commenced three suits against different parties, and am determined to prosecute every person who infringes the patent; and those individuals who have given credence to the pirates will soon have an opportunity of defending themselves before a court of justice.

The original and genuine Patent Fire-Proof Paint, either in dry powder, or ground in oil, can at all times be had at the general depot, 84 Pearl st., New-York, from the patentee.

W. BLAKE.

My '52.



THE DREADFUL RAVAGES

OF

FIRE!

MAY MANY TIMES BE ENTIRELY PREVENTED, BY USING

THE

GENUINE OHIO

FIRE-PROOF PAINT.

THIS invaluable Mineral Paint is one of the most extraordinary mineral products in the West, being very **Economical in Expense, Impervious to Water, Indestructible by Fire, and perfectly simple in its application.** For all kinds of WOOD, IRON, TIN, CLOTH, BRICK, and STUCCO WORK, it is the best article ever applied, and most admirably adapted for every purpose where paint of any kind can be successfully and cheaply applied.

Its efficacy in preserving wood from decay, iron from oxidation, and brick-work and masonry from dampness, is peculiar and positive. Its **incombustibility** is also remarkable, forming a good protection to roofs and buildings of wood from burning, and falling flakes of fire.

For Wood or Brick COTTAGES, VILLAS, &c., it cannot be too highly recommended. For MANUFACTORIES, CHURCHES, and PUBLIC BUILDINGS, nothing can exceed it; and for all RAILROAD purposes, for painting BRIDGES, CARS, DEPOTS, &c., it is invaluable. It is now being used at the West for STEAMBOATS, with great satisfaction, and will doubtless soon supersede White Lead for that purpose. For COACH, CARRIAGE, CAR, CAR, and CABINET MAKERS, it is said to be a perfect desideratum, forming a surface as hard as marble, and receiving a polish as beautiful as porcelain. For all descriptions of out-buildings, fences, and particularly ROOFS, its value can scarcely be calculated—changing in a few months from a paint to a slate or marble coating, resisting both fire and moisture. The

natural colors of the paint are *dark drab* and *chocolate*, which, however, if desired, are easily changed to any shade, from a drab to a stone, or dark slate color.

WARRANTED PURE, AND NO INFRINGEMENT,

AS THE FOLLOWING CERTIFICATE WILL FULLY SHOW.

A CARD TO THE PUBLIC.—In my circulars and advertisements, in which I have cautioned the Public against any infringement of my Patent Fire and Water Proof Paint, I had no reference to a Light Colored article, of Different Shades, sold by Mr. W. H. STARR, No. 67 Beekman street, in this city, nor are they intended to interfere with its sale or use.

New-York, June 26, 1849.

WILLIAM BLAKE.

BEWARE OF FRAUDS!

The GENUINE FIRE-PROOF PAINT, direct from the mines, can always be obtained, without delay, warranted pure, of the subscriber, who has the highest testimonials of its superior valuable qualities; and specimens of the paint applied, of ALL THE VARIOUS SHADES OF COLOR.

All orders for the *Genuine Article*, by the barrel or ton, either dry or ground in oil, will be supplied at REDUCED PRICES, by

W. H. STARR, 67 Beekman Street, N. Y.,

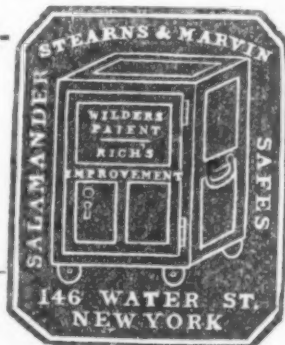
WILDER'S PATENT SALAMANDERS, WITH RICH'S IMPROVEMENT.

The only Safes with Wild-

COMBINED, ARE MADE BY

146 Water St.,

The sole Proprietors of Rich's Pa-
er's Patent with



er's Patent & Rich's Patent

STEARN'S & MARVIN,
New-York.

tent, and joint Proprietors of Wild-
Silas C. Herring.

THE GREAT FIRE IN CHILLICOTHE, ONE THIRD THE
TOWN BURNT TO ASHES!

CHILLICOTHE, OHIO, Tuesday, April 13th, 1852.

MESSRS. STEARN'S & MARVIN—Gentlemen: Yours of the
5th is at hand. In reply, every Safe in the fire, except yours,
has proved good for nothing. I lost a large Safe—it was per-
fectly destroyed; but in the small Salamander I bought from
you, nothing was injured.

Your obedient Servant, W. T. CLEMONS.

The above letter shows that in a real hot fire Rich's SALA-
MANDERS are the only Safes to be depended upon. In the
Pearl street fire, eleven Safes, of different makers, were totally
destroyed, Rich's Safe alone bidding defiance to the flames,
preserving notes, bonds, and mortgages, to the value of
\$100,000. The Chillicothe fire is a parallel case—every Safe
but Rich's is destroyed. These repeated occurrences prove in-
contestably that Wilder's Patent Salamander, with Rich's im-
provement, are the best Safes made in the United States, or in

the whole world. They can be had at the depot, No. 146 Water
Street, and at the Factory, corner of St. Mark's Place and
Avenue A, New-York.

ALSO AT THE FOLLOWING AGENCIES:

Isaac Bridge, New Orleans, La.; L. M. Hatch, Charleston, S.
C.; Thompson & Oudsluys, Balt., Md.; Holyoake, Lowndes &
Co., Memphis, Tenn.; Eddy & Morley, Toledo, O.; Allis &
Howes, Evansville, Ind.; S. Shephard & Co., Buffalo, N. Y.;
Walter K. Marvin, Lockport, N. Y.; Barney Brothers, Mobile,
Ala.; Chas. H. Campfield, Savannah, Ga.; Hall and Moses, Co-
lumbus, Ga.; DeRosset & Brown, Wilmington, N. C.; W. Ran-
dall, St. Paul, M. T.; Morly & Reynolds, Cleveland, O.; Alfred
Wright, Roch., N. Y.; J. Hutton, Montreal, Ca.; Starr & Mason,
Camden, N. J.; J. H. Westcott, Plattsburgh, N. Y.; Ashley
Brothers, Ogdensburgh, N. Y.; A. B. Merrian, Oswego, N. Y.;
Dana & Co., Utica, N. Y.; Norton, Bradley, & Co., Syracuse,
1 yr. * Jy. '52.

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